DOCUMENT RESUME

ED 212 113 EC 141 519

AUTHOR Shuster, Susan K.
TITLE Indiana Integrated Model Preschool Program (Monroe County Community School Corporation Multi-Categorical Model Education Program). Final Report, July 1, 1980-June 30, 1981.
INSTITUTION Indiana Univ. Foundation, Bloomington.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE 1 Oct 81
GRANT G007801299
NOTE 227p.; Print is poor in parts.

EDRS PRICE MF01/PC10 Plus Postage.
DESCRIPTORS Demonstration Programs; *Disabilities; Individualized Instruction; Interdisciplinary Approach; *Mainstreaming; *Preschool Education
IDENTIFIERS Integrated Model Preschool Program

ABSTRACT

The final report describes activities of the 3 year Integrated Model Preschool Program, which provided special educational services to up to 20 preschool handicapped children per year in an integrated public school setting in Monroe County, Indiana. First year activities focused on developing a prototype preschool demonstration program which could be replicated by local education agencies in anticipation of a future state mandate extending education of the handicapped to the preschool level. Fully developed in the second year, the program stressed individualized curricula implemented through an interdisciplinary team approach, part day mainstreaming with regular education students, and development of a data based instructional strategy. Third year efforts included refinement of the Goal Attainment Scaling process and parent pressures to replicate the project on the local level in lieu of statewide adoption. Program components are summarized in terms of direct service, parent-family participation, assessment of child progress, inservice training for Projet Staff, training for personnel from other programs and agencies, demonstration and dissemination, and corrdination with other agencies. The major portion of the document consists of appendixes including articles on the continuation of the preschool program, a summary of parent survey results, a report on goal attainment scaling, child growth, and the merits of alternative mainstreaming strategies for preschool children using a naturalistic evaluation approach. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

PROGRAM PERFORMANCE REPORT (Discretionary Grants)

FORM APPROVED
OMB NO. 51-R1091

Further monies or other benefits may be, but will not necessarily be, withheld under this program unless this report is completed and filed as required by existing law and regulations (45 CFR 121, GSA FMC 74-7).

Part I

All grantees with awards from programs listed under "General Instructions" above respond.

1. Date of Report:	2. Grant Number:
October 1, 1981	G007801299
3. Period of Report: From:	**To:**
July 1, 1980	June 30, 1981

4. Grantee Name and Descriptive Name of Project:

Indiana University Foundation
Developmental Training Center
PO Box F
Bloomington, IN 47401

Indiana Integrated Model Preschool Program
(Monroe County Community School Corporation
Multi-Categorical Model Education Program)

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Certification: I certify that to the best of my knowledge and belief this report *(consisting of this and subsequent pages and attachments)* is correct and complete in all respects, except as may be specifically noted herein.

Typed Name of Project Director(s) or Principal Investigator(s):	Signature of Project Director(s) or Principal Investigator(s):
Susan K. Shuster	Susan K Shuster

Part II *("Accomplishment" Reporting)*

A. All grantees, except for those with awards under 13.443 are to respond to this Section A. Grantees under 13.443 go to B of Part II.

All grantees with awards under 13.444 except those supported solely for "Outreach" activities are to follow the organization of categories listed below in presenting their performance reports. The categories are based on activities common to all Early Childhood projects with the exception noted above for projects solely supported for outreach activities.

(1) Direct and Supplementary Services for Children's Services
(2) Parent/Family Participation
(3) Assessment of Child's Progress
(4) Inservice Training for Project Staff
(5) Training for Personnel from other Programs or Agencies
(6) Demonstration and Dissemination Activities
(7) Coordination with other Agencies
(8) Continuation and Replication

The grant application for programs 13.445, 13.446, 13.450, and 13.520 provided for the following functions or activities as categorical headings in the budget and narrative sections:

Research and Development	Dissemination
Demonstration/Service	Preservice/Inservice
Evaluation	Training

Programs 13.451, and 13.452 do not usually require a breakout since the primary function or activity is intrinsic to the respective program.

For each of the above programs, functions, or activities *(as well as those of special import for certain programs; e.g., replication, advisory councils, parent involvement)* discuss the objectives and subobjectives presented in the approved application *(in narrative format)* in terms of:

(a) Accomplishments and milestones met.
(b) Slippages in attainment and reasons for the slippages.

Refer back to your application and utilize your quantitative quarterly projections, scheduled chronological order and target dates, and data collected and maintained as well as criteria and methodologies used to evaluate results for (a) and (b). For grantees under 13.444, in discussing training or personnel from other programs, include descriptions of types of training, institutions or organizations involved, and numbers of trainees and hours of training received.

Also highlight those phases of the plans of action presented in your application that proved most successful, as well as those that upon implementation did not appear fruitful. NOTE: Outreach grantees are to discuss accomplishments and slippages in terms of replication and stimulation of services, resources provided and field testing and dissemination and training in terms of types of personnel receiving training and the number of hours involved.

Grantees finishing this portion of Part II, go to C of Part II.

B. Reporting for Grantees under 13.443 *(Research and Demonstration)*.

Discuss major activities carried out, major departures from the original plan, problems encountered, significant preliminary findings, results, and a description and evaluation of any final product. Either include copies of, or discuss: information materials released; reports in newspapers, maga-

ED212113
EC 141 519

zines, journals, etc.; papers prepared for professional meetings; textual and graphic materials; completed curriculum materials and instructional guides, or drafts if in a developmental stage, special methods, techniques and models developed; scales and other measuring devices used.

When finished with this portion of Part II, 13.443 grantees go to C of Part II.

C. All grantees are to respond to this section C. Discuss the following:

(1) Unanticipated or anticipated spinoff developments *(i.e., those which were not part of your originally approved subobjectives, but which are contemplated within the purpose of the Education for the Handicapped legislation, such as new cooperative inter-agency efforts, a decision by volunteer(s) to pursue a career in special education, new public school policy to integrate handicapped children into regular classrooms, enactment of mandatory or other State legislation affecting early education, relevant new course offerings at universities, etc.).*

(2) Where outputs are quantified in response to any portion of Part II, relate quantifications to cost data for computation of unit costs. Analyze and explain high-cost unit

(3) Indicate other matters which you would like OE to know about *(e.g., community response to the project, matters concerning the project's working relationship with OE, technical assistance of OE staff, or any other relevant subject.).*

Part III

All grantees with a Demonstration/Service function or activity, except for 13.444 grantees who are solely supported for "outreach" activities, are to complete Tables IA, IB, and IC. All grantees under 13.451, as well as those under other handicapped programs with a Preservice/Inservice Training activity are to complete Table II. All grantees under 13.444 except those who are supported solely for "outreach" activities, are to complete Tables IIIA and IIIB.

Table IA – Demonstration/Service Activities Date

Children

Enter actual performance data for this report period into the appropriate boxes. Use age as of the time of the original application, or the continuation application, whichever is later. On lines above line 11, count multihandicapped individuals only once, by primary handicapping condition, and indicate the number of multihandicapped in line 12. Data for lines 1 through 11 are for those directly served; i.e., services to those enrolled or receiving major services, and not those merely screened, referred or given minimal or occasional services.

Type of Handicap	Number of Handicapped Served by Age					
	Ages 0-2	Ages 3-5	Ages 6-9	Ages 10-12	Ages 13-18	Age 19 and Over
1. Trainable Mentally Retarded		2	1			
2. Educable Mentally Retarded		2	4			
3. Specific Learning Disabilities						
4. Deaf-Blind			1			
5. Deaf/Hard of Hearing						
6. Visually Handicapped						
7. Seriously Emotionally Disturbed						
8. Speech Impaired			1			
9. Other Health Impaired		2	1			
10. Orthopedically Impaired		2	2			
11. Total		6	10			
12. Multihandicapped		2	4			

If the data in the above table differ by more than 10 percent from the data originally presented in your approved application, please explain the difference.

Project Staff Providing Services to Recipients in Table IA

Type of Staff	Number	
	Full-time	Part-time (As Full-time Equivalents)
Professional Personnel (excluding teachers)		4
Teachers	2	
Paraprofessional	2	

Table IC

If applicable: Services to Those Handicapped Not Included in Table IA

Service	Number of Handicapped
Screened	
Diagnostic and Evaluative	
Found to Need Special Help	
Other Resource Assistance	7

Table II

Preservice/Inservice Training Data

Handicapped Area of Primary Concentration	Number of Persons Received Inservice Training	Number of Students Received Preservice Training by Degree Sought			
		AA	BA	MA	Post-MA
Multihandicapped			1		
Administration					
Early Childhood	2		2		
Trainable Mentally Retarded			8		
Educable Mentally Retarded					
Specific Learning Disabilities					
Deaf/Hard of Hearing					
Visually Handicapped					
Seriously Emotionally Disturbed					
Speech Impaired					
Orthopedically and Other Health Impaired					
TOTAL	2		11		

If data in Table II above differ by more than 10 percent from those in your approved application, explain.

Table IIIA
Placement of Children Participating in Early Childhood Program During Reporting Period

Indicate the placement of children who left your project during the year covered by this report period.
NOTE: Count each child only once by primary type of placement below.

TYPE OF PLACEMENT			NUMBER OF CHILDREN	
			FULL-TIME	PART-TIME
INTEGRATED PLACEMENT *(i.e., in regular programs with children who are NOT handicapped)*	Nursery schools			
	Day-care programs			
	Head Start			
	Pre-kindergarten			
	Kindergarten		1	
	Primary grades	First	1	
		Second		
		Other		
SPECIAL EDUCATION PLACEMENT *(i.e., in classes only for handicapped children but situated in regular private or public school)*	Pre-kindergarten			
	Kindergarten			
	Primary grades	~~Xxxx~~ Mild	2	
		~~Xxxxx~~ Moderate	5	
		Other		
INSTITUTIONAL PLACEMENT	Scheduled to remain in Early Childhood Program in coming year			
	Other *(specify)* Severe/Profound		1	

Table IIIB

Cumulative number of children entered into integrated placement *(if known)* prior to this report period ——→	NUMBER	Estimated retention rate of cumulative number in integrated placement ——→	PERCENT
			%

*During the Reporting Period three children were integrated into Regular preschool/kindergarten classrooms on a part-time basis but were placed in Primary Special Education programs upon leaving the Preschool.

TABLE OF CONTENTS

	Page
Part I Replication of the Model Demonstration Program	1
Part II Summary of Model Program Components	10
1.0 Direct Service	11
2.0 Parent-Family Participation	24
3.0 Assessment of Child Progress	26
4.0 Inservice Training for Project Staff	27
5.0 Training for Personnel from other Programs and Agencies	27
6.0 Demonstration and Dissemination	28
7.0 Coordination with other Agencies	32
Part III Evaluation Research	35
Appendices	
A. Articles on Continuation of Preschool	42
B. Example of Services	45
C. Sample Report of Preschool	53
D. Summary of Parent Survey Results	77
E. Goal Attainment Scaling Paper	83
F. Child Growth Study	109
G. Exploring Alternative Mainstreaming Strategies	168

Part I

Replication of the Model Demonstration Program

(the future of the program)

Progress to Date

Introduction

The information in this section is based on an analysis and synthesis of data derived from (a) interviews with project staff and other key persons having an informed perspective as to project planning and implementation, (b) a review of project documents and records, and (c) direct observation utilizing either a participant or a non-participant observation stance.

The discussion of program progress which follows is divided into three parts. The first part examines project activities during the first year of operation and provides a background context for transition to a discussion of program activities during the second year of the grant. Part two provides a discussion of activities during the second year of the project. This section is discussed in terms of organizational development/refinement, and model development. Part three provides a discussion of activities during the third year and highlights the extensive efforts to assure the continuation of the program beyond the grant period.

First Year Activities: 1978-1979

The first year of the project was one of transition from operating a preschool for handicapped children under the auspices of a private ARC to that of University sponsorship under the DTC. This transition involved relocating, both administratively and operationally, a special education preschool from a segregated facility to that of an integrated setting within the local MCCSC public school system. Within this context of transition, the major progress of the program can be viewed in terms of organizational development and the articulation of various roles and

responsibilities between the DTC and the MCCSC.

Soon after the award of Federal funds, planning began for installing the program within the local public school system of the MCCSC. Over the summer of 1978, representatives of the state DPI, the local MCCSC, and the DTC sponsor came together to address issues of model program rationale, program objectives, allocation of personnel, and the coordination of roles and responsibilities. The essence of the model was to develop a prototype preschool demonstration program which could be replicated by LEAs in anticipation of a future state mandate extending education of the handicapped to the preschool level. The DTC would have responsibility for model development and the MCCSC would be responsible for operating the program by providing comprehensive preschool special education services within a public school setting.

Resolution of planning and implementation issues helped in securing formal MCCSC school board approval of the project in August 1978. School board sanction was a big step administratively in facilitating the transition of special education service delivery to a nonsegrated setting within the local public school system. An advisory board was later established with representation from state and local administrators, instructional personnel, and parents of enrolled children.

Second Year Activities: 1979-1980

At the beginning of the second year of funding, additional staff were hired in the form of a Program Coordinator, a Program Evaluator, and a secretary for the preschool. With the help of these additional persons, further progress was made in organizational refinement, classroom operations, and model development.

The Coordinator facilitated the development of a model of an inter-

disciplinary team, and a groundwork was laid for model development particularly as it related to the development of a data-based instructional strategy. The evaluator was able to provide options for further program development and functioned to provide technical support and feedback in operationalizing new areas of model development. The preschool's secretary, in turn, provided the necessary technical support required for increased organizational development and model development.

Project organization was refined by conducting a variety of planning meetings on a weekly basis to facilitate program communication. Such communication helped to identify service delivery and model development needs, and strategies were discussed as to how to meet such needs. The preschool held a weekly staff development meeting which included the demonstration teachers, the coordinator, and the evaluator. And child staffings occurred as needed among the interdisciplinary team which expanded the preschool staff meetings to include the ancillary support staff for programming concerns.

The Program Coordinator also facilitated organizational linkages between the special education and regular education divisions of the public school within which the preschool is housed. This kind of administrative coordination facilitated on-going efforts with part-day mainstreaming.

Linkages with community agencies were further refined. These include cooperative relationships with agencies such as Head Start, Riley Children's Hospital, and the DTC's Infant/Toddler Project. Communication and coordination with area pediatricians was also refined.

The Advisory Board continued to meet every six weeks and became increasingly involved with the program.

And finally, the preschool realized a full enrollment of twenty children, one of whom was enrolled as a normal peer model. This enrollment was operating during the regular academic year as well as in the summer program which operated for four weeks.

The model was fully developed during the second year and essentially involved three foci: (a) Individualized curricula and unique child outcomes via the IEP process and implemented through an interdisciplinary team approach, (b) an integrated program utilizing part-day mainstreaming with the regular education division at University Elementary School, utilization of opportunities within an integrated setting such as cooperative use of the playground, lunch room, etc., and the use of normal peer models within the multicategorical preschool program, and (c) the development of a data-based instructional strategy. Aside from considerations of model development, the program also emphasized parent involvement, training/technical assistance, and formative program evaluation to assist with program development.

Prior to the second year, the demonstration teacher with whom a child was to be placed was not involved in the initial case conference which established an entering child's IEP. During the second year, the demonstration teachers were involved in the initial case conference and IEPs which were generated through this process. IEPs were implemented through a coordinated team approach involving an interdisciplinary staff (demonstration classroom staff and ancillary therapists like speech/language, occupational therapy, physical therapy, and adapted physical education).

The level of mainstreaming on a part-day basis was fairly constant over the first two years of operation involving approximately three children each year. Children were mainstreamed into the regular education divisions nursery school program, kindergarten program, physical education classes,

music classes, and library story hour.

One non-handicapped child was enrolled during the second program year as a normal model. This was largely a pilot phase in examining the feasability of utilizing normal peer models. This child's verbal abilities were capitalized on for instructional-therapeutic purposes. Lessons learned from this pilot phase of normal peer model implementation were articulated for further model program development in the third year of the grant.

During the first year and a half of the program, a data collection system existed in the form of descriptive development assessments which functioned to provide pre-post information for child progress monitoring relative to IEP goals. To improve this situation, staff training in Goal Attainment Scaling began in the Winter of 1980 and was implemented with four children on a pilot basis. It was anticipated that this method would be implemented with all children during the third year of the grant.

In the second year, there was more parent involvement in the IEP case conferencing process, in parent-teacher meetings, in social/information sharing meetings at school, in parent cooperation with home visits by the teachers, and on the project Advisory Board.

Third Year Activities: 1980-1981

The overall objectives of this model demonstration project remained the same and were pursued vigorously during the third year of Federal funding. The objectives are stated in Part III of the overall report.

The multi-categorical nature of handicapped children served by this project remained unchanged. The enrollment of twenty children included four non-handicapped children to serve as normal peer models. In addition, three handicapped children were mainstreamed in the regular education

division's nursery and kindergarten classes (for a more complete report, see Part II). Extensive studies of integration methods were mounted during the third year. These are reported in Part III of this report and address the effectiveness of mainstreaming handicapped children as well as examining the implementation and outcomes of using normal peer models in preschool demonstration classrooms.

The Goal Attainment Scaling process was refined and was used to facilitate instructional planning for the severely-profoundly handicapped children. In addition, the case study approach was used to incorporate all available documentation of a given child's progress. Anecdotal records were utilized to document and monitor educational process factors as individually implemented by the demonstration classroom staff and ancillary staff. The Indiana Home Teaching System assessment and the Portage were utilized on a pre-post basis for all children to assess child progress. The results of the assessment efforts are also included in Part III.

Many efforts were mounted to share the program at the local, state, and national level. As a result, the program staff have received many requests for papers and reports. These dissemination activities are described in detail in Part II.

However, one of the most significant efforts during the third year involved a group of parents who served on the Parent Advisory Board. Since the State of Indiana and the Department of Public Instruction did not revise Rule S-1 (the State's version of PL 94-142) in extending the special education mandate to preschool age as anticipated, it was clear that state-wide replication of this model program, or aspects of it, would be doubtful for 1981-1982. This resulted in a change of focus to facilitate replication of this project in terms of the local school district (the

MCCSC) as opposed to a wider audience of potential adopters. It was hoped that by maintaining this project locally in the public school system, a viable model for public education of preschool handicapped children would survive to assist a future audience of adopters when that time comes.

To enhance the likelihood of local replication, six parents mounted a massive campaign to demonstrate the need for the continuation of the program. These parents, Fran and Keith Senderak, Holly and John Sweet, and Celicia and Henry Upper, circulated petitions, organized a vocal parent group, and orchestrated a very powerful and poignant presentation to the MCCSC school board. Dr. Upper's speech, in particular, was very moving (a portion of it was reproduced by the Exceptional Parent magazine and appears in Appendix A). After lengthy deliberation, the MCCSC appealed to the State Department of Public Instruction, and a state grant was secured to continue the program in its current form (see Appendix A for a media report of this decision).

Summary

It is hoped that our third year efforts at the local and state levels have accomplished two objectives. First, by demonstrating a cost-effective approach to serving preschool handicapped children through this demonstration project, the local school system will continue to maintain the program after State funding expires. This will serve to demonstrate that LEAs can operate preschool special education programs on a cost-effective basis and will provide a precedent for future adopters. Secondly, our state efforts through the Early Childhood Consortium, which we spearheaded during 1979-1980, will function to identify facilitating/constraining factors to

diffusion of preschool special education within the public school system and will also serve to promote the perceived benefits involved in undertaking special education of the preschool handicapped. Together, these efforts should help to lay the groudwork for the day that Rule S-1 is revised. At a minimum, our efforts will at least encourage others to attempt and carry on the comprehensive services which we have demonstrated through the assistance of the Bureau for Education of the Handicapped.

Part II

Summary of 1980-81

Model Program

Components

1.0 Direct Service

1.1 Target Population Served

Since the Multi-Categorical Model Preschool is administered by the local public school system the direct services rendered to the children were provided public school staff. The Monroe County Community School Joint Services Cooperative is responsible for the education of all children residing in three rural and semi-rural counties in south central Indiana. The population served in the Model Preschool exhibited various handicapping conditions ranging from mild to severe. Although the primary target populations for this model project are those severely/ profoundly handicapped children between the ages of three to six residing within the Cooperative boundaries, the multi-categorical philosophy of the program allows program participation for all, identified and potential, handicapped children who meet age requirements. As it is a goal of this project to educate children in normalized settings, non-handicapped children are also accepted into the program.

During the 1980-81 school year (third year of the project) twenty one children were served. The enrollment capacity is twenty. An opening for a new student was made available during the school year due to the move of one of the families. This turnover made the total number of children served to be twenty one. All of the children were Case Conferenced into the program as outlined by the Monroe County Community School Corporation (MCCSC) and Indiana Mandatory Services Act. Seventeen children were labeled and enrolled as a result of this process. This left four openings for non-handicapped children to be enrolled as normal peer models.

Direct services included: a) daily program provided by the Demonstration Teacher and her Instructional Associate b) health services

c) physical therapy d) speech and language therapy e) occupational therapy f) adapted physical education g) social services h) deaf-blind resource i) optometry screening and j) transportation. (See appendix B for a breakdown and example of the types of services over the year.)

Records were kept current and data was collected on each child in the project. The records include the following information:

1) Past Educational Data: if children were served in a school setting within the current school system, records were kept on the children. If the children were served by another setting, either private or outside the current school system, written consent was secured from the parents to release any pertinent education records.

2) Referral Information: the project adhered to the current state procedures for referring children to the program. Indiana law mandates special education for students ages 5-18, however, the same procedures were used for 3 and 4 year olds. The referral of any child for an educational assessment may be started by the child, parent(s) teacher(s) school administrator(s), and/or special teacher(s). Although the child may not have been in a school setting, the teacher(s), special teacher(s), or administrator may know the family and refer the child. The referral may be initiated to determine cause, extent, or possible remediation of suspected learning problems or handicapping conditions. Before any individual tests are administered for the educational assessment, the parent/guardian is to be fully informed of the referral and the reasons for the referral. Written parental

permission is necessary. Once written parental consent is secured, the evaluation of the child takes place. Within 40 school days from date of the initial referral, the case conference committee convenes. At the meeting, the committee interprets the evaluation results, determines appropriate placement options which provide the least restrictive environment for the child, determines necessary related services and writes the child's IEP.

3) History of each Child: if a child was new to the educational environment (i.e. never in shcool in the past), the history reflected in the records included past medical history, any unusual developments such as walking at a later than normal age and other information the social worker could obtain from the parents.

4) Assessments: because each child must be evaluated before being recommended for the program, a psychological report is written on each child and placed in the child's folder. The report includes, among other things, the assessment tools used and the results. The teachers use a more informal assessment on each child. An adaptive behavior assessment is also conducted. It was usually a parent interview process. The results were recorded and discussed at the Case Conference.

5) Handicapping Conditions: Indiana operates on a categorical labeling system. Thus, each student receiving special education services has a label of one or more of the following:

   1) learning disabled (LD)

   2) mildly mentally handicapped (MiMH)

3) moderately mentally handicapped (MoMH)

4) severely/profoundly mentally handicapped (S/PH)

5) emotionally handicapped (EH)

6) hearing impaired (HI)

7) visually handicapped (VH)

8) multiply handicapped (MH)

9) communication handicapped (CH)

10) physically handicapped (PH)

The children enrolled during the third year were classified as follows:

Number	Label
4	Multiply Mentally Handicapped
4	Mildly Mentally Handicapped
3	Moderately Mentally Handicapped
1	Severely/Profoundly Mentally Handicapped
3	Communication Handicapped
1	Physically
4	Non-Handicapped Peer Models

Three children were mainstreamed for a half day into regular education - two attended kindergarten and one child attended a nursery school program. (See Appendix C for an example of a report for recording and updating status of preschool.)

At the end of the school year fifteen children exited the Model Preschool Program. The other five children will remian in the Preschool under the auspices of the local school system (MCCSC). The placements for the fifteen children range from a severely handicapped self-contained classroom to a regular first grade classroom with no support services recommended at this time. Three of the "normal" peer models will participate in regular programs for non-handicapped children.

1.2. Curriculum Design

As a public school program the Multi-Categorical Preschool provides a curriculum that meets young children's needs in an elementary school setting. The curriculum incorporates basic Early Childhood Education practices while providing those therapeutic services necessary for remediation and/or prevention. The developmental model is the framework for the Preschool curriculum and instruction, with emphasis on acquisition of those skills necessary for entry into the public school--both regular and special education.

Opportunities for learning within the elementary building were taken advantage of when those activities were appropriate. For example the library, cafeteria, playground and music rooms were used as a means of providing instruction as well as mainstreaming opportunities for the preschoolers. Since the population was multi-categorical in nature and the children exhibited a wide range of handicapping conditions the degree of participation in the regular education activities were dependent on each child's behavior and skills. Therefore mainstreaming was dependent on necessity and appropriateness of the activity.

The curriculum design is one that teaches requisite skills and behavioral performance in subsequent environments. Stated another way, the curriculum design is predicated not only on skill development for the child's current environments but also and primarily be directed toward the development of skills for future environments (i.e., regular public school classrooms). Such curriculum design must be founded on the notion that the least restrictive environments are in fact public school classroom. Further, it must be founded in the belief that the daily instructional program and classroom design are also the least

restrictive for even the most severely handicapped child.

Individuals who are severely handicapped exhibit severe deficits in their developmental functioning. They may also exhibit stereotypic behavior that impedes education and training designed to reduce and eliminate developmental deficits. While it is possible to list the most commonly occuring developmental deficits of severely handicapped pre-school children, such lists may reflect more the lack of systematic instruction rather than physical or cognitive limitations of the children.

Areas of emphasis were: language and communication skills, social and behavioral skills, and pre-academic readiness skills. Because the population served had such a wide range of developmental levels these content areas were individualized according to the specific needs of the children.

1.2.1 Curriculum Implementation

The Preschool operates on the same calendar as the school age programs within the public school system. The children attend for five full days each week. The program is located in two classrooms within the largest elementary school in the corporation. This provides opportunities for integrative experiences throughout the school day. The uniqueness of this program is tied to this ideal location. It enhances the comprehensive services offered to the children and their families as well as a variety of opportunities for instruction within the least restrictive environment. It facilitates the concept of integration and is more easily implemented when appropriate.

The classrooms are non-categorical in nature; that is, each of the classrooms has a variety of children at varying developmental and chronological age levels with a variety of needs. The daily instructional program and classroom design are also the least restrictive for even the most severely handicapped child.

Integrative experiences took place on several levels within the day-to-day instruction of the children. A majority of the children ate in the public school cafeteria with their non-handicapped peers. Two children spent part of the day in kindergarten programs, and one child spent part of his day in a regular preschool, ideally located in the facility as well. Some of the children participated in music with the kindergarten class and took advantage of the school library activities. Their playground time is structured in ways that also facilitate integration with non-handicapped peers.

The content areas of instruction on a day to day basis reflected the philosophy of the Model Preschool. Communication skills were

emphasized along with those skills necessary for attending school age programs in the least restrictive environments. Weekly staffings were held and attended by the interdisciplinary staff. The staffings proved valuable in sharing program ideas and objectives.

The daily activities incorporate the readiness skills as outlined in the classroom schedules that follow:

PRESCHOOL CLASSROOM SCHEDULE

Room A

Susan Desch, Demonstration Teacher
Sherrie Bowlen, Instructional Associate

8:15 - 8:50	Buses arrive; Supervised free play (as little adult intervention as possible)
8:50 - 9:10	Snack - This is a social and language time - very individualized for each child, (as well as self-help)
9:10 - 9:30	"Circle" Also language and social time. Positive way to begin day - we also introduce cognitive and simple fine motor skills. Includes all children and is geared in some way to the level of each child.
9:30 - 10:00	Cognitive Skills - Perceptual and Fine Motor skills (Two groups - as individual as possible)
10:00 - 10:30	Gross Motor Time - Outside if possible - all children Individualized for 2 children who stay inside with one teacher if entire group cannot go out. Inside - Simple games, trampoline, bowling, ball skills, etc.
10:30 - 10:45	Supervised play; Break for Instructional Associate
10:45 - 11:05	1) Language group - Susan Desch 2) Individual child stimulation activities (visual, auditory, tactile) - Sherrie Bowlen
11:15 - 12:00	Lunch - Brush teeth
12:00 - 12:30	Art/Music activity, manipulative games (puzzles, Tinker Toys), or Fine motor activities (includes all children).
12:30 - 2:00	Rest/Nap
12:35 - 1:15	Lunch and break for Instructional Associate
1:20 - 2:00	Teacher Prep Time - Children up from nap
2:00 - 2:30	Free Play
2:30 - 3:00	Prepare to go home

PRESCHOOL CLASSROOM SCHEDULE

Room B

Pat Barber, Demonstration Teacher

Beverly DeFord, Instructional Associate

8:20 Arrival; free time; Individual instruction.

8:50 Circle (whole group): Activities will include finger plays, singing, shaking hands, pre-academic and language games, attendance. Goals are to increase attending behaviors, to develop recognition of names, to encourage spontaneous and imitative language and motor skills and to listen, follow direction, and to take turns in a group situation.

9:15 Juice. To provide nourishment; develop self-help skills; develop appropriate social language and to encourage spontaneous language.

9:25 Structured play activity/free exploration.

9:40 Perceptual/Fine Motor Activities (individual and small group): Activities are programmed to meet individual needs of children in addition to increasing attending behaviors and task completion skills. Activities are to develop small motor skills and eye-hand coordination and may include working with puzzles and shapes, using a pencil, coloring, block play and other manipulative toys and materials.

10:10 Gross Motor Skills (whole group): Outdoor play at playground; or utilizing gross motor equipment in the classroom or in the gym.

10:40 Language/Pre-Academic Activities: Programmed instruction to build expressive and receptive language (small groups).

11:15 Lunch: In school cafeteria; in the classroom for the children which have adapted feeding programs.

11:55 Gross Motor Activity: in gym or outside.

12:15 Brush teeth and story time.

12:30 Quiet/Rest Time.

1:30 Children assisted individually with shoes and socks and in putting cots and pillows away; opportunity for movement, stretching, interaction and exploration.

2:00 Music/Rhythm Activities
Language Arts .....Activity will depend upon day of week
Adapted Physical Education

2:30 Snack and juice

2:50 Buses arrive

** Note: Instruction and reinforcement in self-help skills are provided for throughout the school day at appropriate and necessary times and places.

Summer Program:

As a Model Preschool the provision of an extended program to the regular school year program was imperative. A four week summer program was held in July and August of 1980. It was an extension of the school year curriculum.

Eighteen children were enrolled in the Preschool Summer Program. It operated under the joint administration of the I.U. Developmental Training Center and Monroe County School System. Staff was employed by M.C.C.S.C. Pre-Service and in-service training was provided to the staff members. Data was collected on all of the children on a daily basis. The children received the following support services: occupational therapy, adapted physical educational, health services and transportation.

The daily schedules of both classrooms changed slightly for the Summer Program. However, both classroom Demonstration teachers continued to implement the existing curriculum. Following are the classroom schedules for the summer program:

PRESCHOOL SCHEDULE

Room A

Judy Shettleroe, Demonstration Teacher

Julia Martin, Instructional Associate

8:15 - 9:00	Arrival - Free Play
9:00 - 9:15	Juice, Snack, Language Activities
9:15 - 9:45	Good Morning Circle (whole group). Activities may include finger plays, singing, shaking hands & saying good morning, saying name & age, talking about activities for that day & other informal conversation to encourage language & participation.
9:45 - 10:00	Recess in courtyard
10:00 - 10:30	Story time (both classrooms)
10:30 - 11:00	Perceptual and fine motor skills (individual and small group). Activities will help improve small motor skills and eye-hand coordination & may include working with puzzles & shapes, using a pencil, coloring, block play, & playing with other manipulative toys & materials.
11:00 - 11:30	Gross Motor Skills - Outdoor play or using equipment in classroom or P.E. room.
11:30 - 11:50	Music
11:50 - 12:00	Lunch preparation
12:00 - 12:20	Lunch
12:20 - 1:00	Self Help/Free Play
1:00	Dismissal

PRESCHOOL SCHEDULE

Room B

Jan Waggener, Demonstration Teacher

Judy Dalrymple, Instructional Associate

8:00 - 8:30	Children arrive - check lunch boxes, restroom.
8:30 - 9:00	Free play
9:00 - 9:15	Good Morning Circle. Say names; Talk about weather, game
9:15 - 9:35	Fine Motor in three groups
9:35 - 9:45	Restroom - Check diapers
9:40 - 10:00	Play on outside court
10:00 - 10:20	Story with Judy Shettleroe/Films on Friday
10:20 - 10:25	Restroom - Diapers
10:25 - 10:40	Juice
10:40 - 11:00	Language, Story, Concepts
11:00 - 11:20	Cognitive Skills (M, W, F)/Art (T., Th)
11:20 - 11:30	Restroom
11:30 - 11:50	Music with Jan Waggener/Films on Fri.
11:50 - 12:00	Restroom - Wash Hands
12:00 - 1:00	Lunch, Brush Teeth/Restroom - Diapers/ Bus Prep.

2.0 Parent-Family Participation

Although the project is public school based, this in no way diminishes active family participation. Parents are not viewed as simply recipients of services; they are viewed and treated as professionals in the instructional program for their child. Parents are given the opportunity and education to assist them in becoming more effective teachers, planners and advocates.

Parent and family participation was individualized to meet the parents' needs. Parent participation within the public school system was not only allowed for, but supported and encouraged. The program design is one where the child's parents are members of the interdisciplinary team. The Multi-Categorical Preschool Project adheres to this philosophy and is continually emphasizing the parent education component of the program.

Because parent education programs must be individualized to meet specific needs, the families of the preschoolers were given a variety of opportunities to become involved and participate in the program.

Upon entry into the Preschool each child has a written IEP that has been developed by the Case Conference Committee. The child's parents are members of that Committee.

It is at this time that the psychological and social services are discussed. Follow up services are available upon request by the parents or any Case Conference Committee member.

Parent - Teacher Conferences are scheduled twice each year - in the Fall and again in the Spring. During these Conferences home visits were made whenever possible. The Preschool staff is committed to parent involvement and use the home visit to facilitate communication between

parent and teacher. Observing the child in his home environment is very useful information for the teacher. Home visits are conducive for discussing the child's growth and development, behavior management techniques and ways to arrange the home to foster development. A large percentage of fathers and other family members were available and able to share in the conferences.

Activities were held for the purpose of information exchange and/or demonstration. At the beginning of the school year a presentation was made by the Ancillary staff. The physical therapist, speech language therapist, occupational therapist and adapted physical education teacher discussed their roles in the classroom and their purpose for working with the children.

Each classroom has an observation booth available for parents and families. Parents are encouraged to use this facility. It is especially useful to parents of a child in the referral process by giving them an idea of the strategies and techniques used in the Preschool. Throughout the year parents were invited and encouraged to participate in activities that lend themselves to parent invlovement. There were several levels of activities so that each family could participate in what was important to them and what they determined to be of interest.

Parents are viewed by project staff from two perspectives. First, they are recipients of services in the program and secondly, they are a professional descipline in the program. The parent-family component developed in the project reflects this belief. Communication between staff and family was essential for providing quality service.

As a professional discipline, parents are viewed as capable of logical decision making and planning for their handicapped child. To

the extent that parents are lacking in their planner and advocate role, the staff assists the parents in gaining such skills. To facilitate this process and program involvement, the parent component remains flexible to meet parents' needs. They were encouraged by staff to become active in school-at-large matters. All parents were invited to join the PTA and participate in their activities.

This year the parents were represented on the Advisory Board by four more parents than in previous years, making the total number to be five. Since the third year was crucial in determining the future of the Preschool and how families could best be served in the community it was decided that more parent representation could assist the entire Board in making some of those decisions. These parents were quite active and took on many responsibilities in communicating with the rest of the parents and families.

3.0 Assessment of Child Progress (see Part III, Evaluation Research)

4.0 In-Service Training for Project Staff

The Model Preschool staff participated in on-going activities conducted by M.C.C.S.C. and the Developmental Training Center. These include weekly meetings, seminars and an Instructional Forum with topics such as Coordination of Curriculum (within the school system), Advocacy for the Handicapped and Communitization of Services.

A consultant on normal peer modeling conducted two days of workshops for the Preschool staff. Dr. Nancy L. Peterson from University of Kansas consulted with the staff about various aspects of utilizing non-handicapped peers in the classrooms.

5.0 Training for Personnel from Other Programs and Agencies

The preschool program is a training site for University students. The majority of students that participated in a practicum were majoring or minoring in Special Education. Ten undergraduate students had direct involvement through practica. Eight of these students were in Special Education and two students are in Early Childhood Education.

Along with University students the Preschool was also a pre-vocational training site for junior high level special education students. Two students assisted the teachers in the classrooms, taking on responsibilities in the areas of lunch preparation and lunch for the children.

Technical Assistance was offered to personnel from other agencies in the form of formal and informal discussions regarding children receiving services from those Agencies; referral information; and written documents and handouts to assist in programming and Preschool services.

Many visitors and observers came to the Preschool during this second year -- a total of 165. They were provided with a brief history

of the project, description of the program components, and interacted with particular staff members, when appropriate.

The following chart provides a breakdown into categories of those persons who visited/observed in the classrooms.

Students	79
Professionals	64
Parents	9
Other	13

6.0 Demonstration and Dissemination

During the third year of the project, dissemination took place at the state and national level as well as the local level. Such features as a slide presentation of the children served, integration factors and data collection systems were shared with different groups and organizations. Also, on site demonstration proved useful for certain service provider groups. Following is a list of those demonstration and dissemination activities:

The project director with the assistance of the State Department of Public Instruction planned and implemented two summer workshops for kindergarten, first grade and primary special education teachers. The workshops were scheduled to coincide with the summer program; thus, participants were able to utilize the two classrooms for observation and practicum. The two workshops were co-taught by Dr. Susan Shuster, Project Director, and two guest instructors. The first workshop was co-taught with Dr. Patricia Eggleston, Coordinator of Early Childhood Programs, Orange Coast Community College in Costa Mesa, California. The second workshop was co-taught with Dr. Stanley Klein, Editor of the Exceptional Parent Magazine. Fourty-five classroom teachers were in

attendance.

The project director, Dr. Susan Shuster, the project coordinator, Gen Shelton, the project evaluator, Nick Fitzgerald and the demonstration staff, Pat Barber and Susan Desch, presented the model program and its components to a variety of professional groups at the national and state level:

The Monroe County Multicategorical Model Preschool Early Intervention Consultation Conference, Indianapolis, Indiana, August, 1980.

A Model Early Childhood Intervention Program for Handicapped Infants, Toddlers and Preschoolers. Governor's Conference on the Handicapped, Indianapolis, Indiana, October 9, 1980.

Looking at Differences: Strategies for Assisting Preschoolers in Understanding Their Handicapped Peers. Indiana Association for the Education of Young Children, Indianapolis, Indiana, October, 1980.

Preschool Programming for the Handicapped Indiana Preschool Administrators of Special Education (IPASE), Bloomington, Indiana, October, 1980.

Evaluation of a Model Preschool Serving Severely-Profoundly Handicapped Children: Selecting the Most Appropriate Data Collection System. The Association for Severely Handicapped Annual Conference, Los Angeles, California, November 1, 1980.

Looking at Differences: Strategies for Assisting Preschoolers in Understanding Their Handicapped Peers. National Association for the Education of Young Children annual meeting, San Francisco, California, November 22, 1980.

The Social Studies as a Vehicle for Helping Children Accept and Understand Their Handicapped Peers. National Council for the Social Studies, New Orleans, Louisiana, November 26, 1981.

Early Intervention for Prevention of School Failure. Conference sponsored by Indianapolis Junior League and Indiana Association for the Education of Young Children, Indianapolis, Indiana, January 28, 1981.

Planning for Early Childhood Special Education in Indiana: A Case Analyses of a Model Preschool Demonstration Program. Indiana Federation of Council for Exceptional Children, Indianapolis, Indiana, February, 1981.

Assessing the Effectiveness of Integration Strategies in a Model Multicategorical Preschool Demonstration Project. International Council on Exceptional Children, New York City, April 12, 1981.

At the local level, Ms. Shelton and Dr. Shuster presented the model preschool at meetings of the following organizations:

Monroe County Early Childhood Association

Community Coordinated Child Care (4-C)

Monroe County Community School Corporation School Board

Bloomington Exchange Club

Monroe County Community School Corporation Parent Advisory Board

Bloomington Network on Infancy

The project director, in her capacity as a faculty member in the Department of Special Education, shared the demonstration program with faculty groups from Special Education, Early Childhood, Educational Psychology, and Social Studies.

Emanating from the program development efforts of the first two years of the project and the presentations delivered at conferences during the third year, the following papers were written and have been dissiminated upon request.

Fitzgerald, N.B., Exploring the Merit of Alternative Mainstreaming Strategies Using a Naturalistic Evaluation Approach: Final Report Indiana University Developmental Training Center, Model Program Development and Dissemination Unit, Bloomington, Indiana, September 1981

Shuster, S.K., Fitzgerald, N.B., Shelton, G., Desch., and Barber, P. Goal Attainment Scaling as a Method For Assessing Instructional Effectiveness with Moderately and Severely Handicapped Preschool Children.

Fitzgerald, N.B., The Integrated Model Preschool Demonstration Project: Second Year Evaluation Report. IUDTC, HPDD Unit, Bloomington, Indiana, October, 1980.

The model program has also been the site for two doctoral dissertations at Indiana University.

Fitzgerald, N.B., A Naturalistic Inquirey into the Dynamics of Social Relationships Between Handicapped and Nonhandicapped Children within an Integrated Preschool Setting.

Pappas, V.C., Individual Education Plans: A Naturalistic Study of the Match Between Intent and Practice.

7.0 Coordination with Other Agencies

Recognizing the need for coordinated efforts of community agencies and personnel to bring comprehensive services to the Preschool participants and their families, the Preschool staff is committed to the cooperative nature of this project. The three participating agencies (IUDTC, MCCSC and DPI), form the framework for the coordination of services. Inter-agency cooperation is a major feature of the Multi-Categorical Preschool Program.

The university-public school relationship is a unique one. It facilitates the project's provision of technical assistance, and cooperative planning, programming and training with other agencies. With the involvement of the Department of Public Instruction these activities also occurred at the state level.

In addition to the cooperation of the three participating agencies of this project (DPI, MCCSC, IUDTC) other coordination across agencies for the purpose of providing comprehensive services to handicapped children and their families was undertaken.

Those agencies that have worked with the Preschool staff in delivering comprehensive services are:

Program PREPARE (IUDTC): As a referring agency PREPARE has participated in the Case Conference procedure and assisted in the development of the referral's IEP.

Stone Belt Center (ARC): As the local ARC, Stone Belt has offered a variety of services to the preschool participants and their families. They include: extended day, day care, transporation, Deaf/Blind Resource, respite residential care as well as child/parent advocacy.

Head Start (CAP): Personnel not only made referrals to the Preschool

but participated in each child's Case Conference and IEP development.

Preschool/Day Care: Through the integration efforts, a working relationship with the preschool teachers and day care staff has developed. Regular meetings are held to discuss common concerns and exchange pertinent information.

Other agencies and personnel involved with the preschool during the past year are:

-Local Red Cross: providing transportation to and from Riley Children's Hospital

-Department of Public Welfare: SSI and Medicare benefits

-Mental Health Clinic: consultation

-IU Speech and Hearing Center: referral and consultation

-Occupational Development Center: referral and consultation

-local physicians: physical therapy prescriptions and pertinent information

-Riley Children's Hospital: diagnosis, evaluation, remediation and equipment

-Cerebral Palsy Clinic: developmental evaluation, therapy, remediation and equipment

In addition to those persons and agencies already listed, the following organizations have also cooperated with the Preschool in order to deliver quality service. They include: Health Services Bureau, Public Health Nursing, Bloomington Hospital Social Services, and Community Coordinated Child Care (4-C).

All of these services were beneficial in establishing rapport with existing community resources and, in turn, outlining the potential capabilities of the preschool project to assist other agencies in providing quality services to impaired preschool children.

Coordination of agencies to supply comprehensive services is an ongoing process. The Preschool staff is aware of the potential of this cooperative nature and is constantly increasing its knowledge of those existing agencies in order to provide accurate information to the students and their families

Part III

Evaluation

Research

Introduction

Evaluation research was conducted in the Indiana Integrated Model Preschool Program during the last two grant years (1979-1980, 1980-1981). Formative evaluation activities were the focus of second year efforts in assisting model program development. Summative evaluation activities were conducted during both the second and third years with respect to assessing child progress and growth. Additionally, demonstration research activities focused on (1) assessing the merit of Goal Attainment Scaling as a method for IEP management, and (2) evaluating the merits of alternative strategies for mainstreaming handicapped children as utilized by the Preschool.

Second Year Evaluation Activities

Formative evaluation activities were conducted during the second year as a stimulus to program and model development. A process evaluation was conducted in the Fall of 1979 to assess the current operational status of the demonstration project. Further needs for program development were identified as an outgrowth of this initial evaluation effort.

Formative evaluation activities throughout the remainder of the second year consisted of providing technical assistance to the demonstration teachers and assisting project administrators in clarifying options for further program development.

Summative evaluation activities were also initiated in the Spring of 1979 to examine the effectiveness of the program in terms of the various integration activities, child progress and outcomes, and parent's reactions to the program. Parent reactions were assessed using a survey research approach; child progress was assessed using a case study approach. Appendix D contains a summary of the parent survey results. An in-house evaluation report for the second year contains ths information in more detail.

Third Year Evaluation Activities

During the final year of the project, three evaluations studies were conducted. One study assessed the project's use of Goal Attainment Scaling, a second study assessed child growth and development, and the third study contrasted conventional mainstreaming with "reverse mainstreaming". Each study is summarized below:

1. Abstract: Goal Attainment Scaling As a Method for Assessing Instructional Effectiveness with Moderately and Severely Handicapped Preschool Children.

Conventional assessment methods have serious limitations for measuring program impact with special education populations, and do not contribute much to managing effective IEP service delivery. This paper focuses on the utility of goal attainment scaling (GAS) as a methodology for meeting these dual needs of speical educations. A field test of GAS in a mutli-categorical preschool program pointed to the relevance of the method for improving IEP implementation effectiveness with severely impaired preschool students. However, there were serious limitations for using GAS as a measure of program impact. The advantages of GAS as an intervention function with severely handicapped students are discussed along with considerations for improving its application to IEP management. (See Appendix E)

2. Abstract: Child Growth and Progress Study.

Mini-case studies were developed on all 20 enrolled children. The data base for developing the case studies relied on the following sources: assessment data, anecdotal records, program records, related project evaluation study material, and teacher interviews. The case studies were reviewed by the teaching staff, and edited where applicable or appropriate. The 20 case studies appear in Appendix F of this final report. The case study data were then analyzed by a procedure involving the rank-ordering of progress data with respect to severity of handicap. The results were discussed in terms of the program's impact on child growth as a function of developmental levels.

3. Abstract: Exploring the Merit of Alternative Mainstreaming Strategies for Preschool Children Using a Naturalistic Evaluation Approach.

This paper is a final report of an evaluation study conducted for the Developmental Training Center which focused on assessing the merits of two alternative integration strategies utilized by the Multicategorical Preschool Program. Conventional and Reverse Mainstreaming practices were studied over the third year of the project using a naturalistic evaluation design The results are presented as two representative case studies for the settings portrayed. Implications from the case study material are then discussed with respect to issues involved with implementing an integrated preschool for handicapped children. (See Appendix G)

Program Objectives

In the spirit of submitting a final report to the Office of Special Education, concerns for accountability must be addressed. Specifically, how and with what success did the program accomplish what it set out to do? Simply put, did the model demonstration project achieve its objectives?

The objectives and sub-objectives of the Monroe County Community School Corporation Multi-Categorical Model Educational Program are listed below:

OBJECTIVE 1:

To provide a comprehensive and integrated model demonstration program to severely handicapped children (3 to 6 years) and their families within public school settings.

OBJECTIVE 2:

To meet state delivery of service and training needs through demonstration and dissemination of model services and curricula that are replicable in whole or part by local education agencies (LEAS).

SUB-OBJECTIVE 1

To implement and demonstrate a data based model instructional program and curricula appropriate to the educational and/or training needs of each participating handicapped child.

SUB-OBJECTIVE 2

To provide for the transition of handicapped children into the least restrictive educational placement at the first grade level.

SUB-OBJECTIVE 3

To implement and evaluate a parent information, education and support programs that meet the needs of individual parents.

SUB-OBJECTIVE 4

To develop and implement a demonstration and information dissemination network at state and national levels.

The remainder of this section addresses the achievement of program objectives.

Objective One

The program's operation and implementation are discussed elsewhere and the reader is referred to Section II. However, a brief history is offered below which address program development of comprehensive and integrated services.

Model Development

The model under development with the Multicategorical Preschool Program essentially involved three foci: (a) Individualized curricula and unique child outcomes via the IEP process and implemented through an interdisciplinary team approach, (b) an integrated program utilizing part-day mainstreaming with the regular education division at University Elementary School, utilization of opportunities within an integrated setting such as cooperative use of the playground, lunch room, etc., and the use of normal peer models within the multicategorical preschool program, and (c) the development of a data-based

instructional strategy. Aside from considerations of model development, the program also emphasized parent involvement, training/technical assistance, and formative program evaluation to assist with program development.

Individualized Curricula and the Interdisciplinary Team

Prior to project funding, the Preschool teachers with whom a child was to be placed were not involved in the initial case conference which established an entering child's IEP. This situation often resulted in teachers having to re-work a child's IEP. The public school preschool teachers are now involved in the initial case conference, and IEP's which are generated through this process are now more relevant and valid for entering children. This procedural modification has reduced needless duplication of effort and has produced IEPs that are more meaningful for those persons responsible for implementing them.

IEPs in the Preschool were implemented through a team approach involving an interdisciplinary staff (demonstration classroom staff and ancillary therapists like speech/language, occupational therapy, physical theraphy, and adapted physical education). Due to efforts of the demonstration project, the Preschool staff now work and plan together as a coordinated team. Such coordination was achieved by conducting weekly (or as needed) interdisciplinary staffings to discuss child programming concerns and implementation strategies. Whereas improvements in coordinating the team's implementation is an ongoing concern, the significant point is that never before have ancillary staff and classroom staff functioned as a coordinated team.

Objective Two

The manner in which the program met this objective is described in Part II.

Sub-Objective One:

The data-based instructional program was implemented through the development of a goal-attainment scaling system to monitor/manage IEP delivery. A report of the demonstration research conducted with Goal Attainment Scaling appears in Appendix E.

Sub-Objective Two:

The reader is referred to Section I for information relevant to the achievement of this objective.

Sub-Objective Three:

Parent involvement over the three years of the project was realized in the IEP case conferencing process, in parent-teacher meetings, in social/information sharing meetings at school, and in parent cooperation with home visits by the teachers. Parents also participated on the Advisory Board.

A parent needs assessment was conducted during 1980 in which 81% of the parents expressed the desire to be involved in a program for parents which would involve social activities, parent support activities, and information sharing. Nineteen percent of the parents felt that these kinds of needs were already being met elsewhere for them. Such data were used in program planning activities during the 1980-1981 school year.

The parent program was also evaluated during the 1979-1980 school year. A report of this study appears in Appendix D.

Sub-Objective Four:

Information pertaining to project dissemination is contained in Section II. The reader is referred to that section of this final report for information illustrating how the project met its final objective.

Appendix A

READERS' FORUM

We welcome all contributions to Readers' Forum. Please send your questions, ideas and responses to: Readers' Forum; THE EXCEPTIONAL PARENT; 296 Boylston Street, Third Floor, Boston, Massachusetts 02116

When a letter is addressed to a contributor for whom THE EXCEPTIONAL PARENT has an address, it is always forwarded, if not printed.

A Plea for Early Intervention

Editors' Note: Henry Upper made the following plea to save a preschool program for handicapped children. His cogent arguments and poignant words are relevant to any early childhood program. The school did receive funding from the State Department of Public Instruction. However, because the funding is not local, the fate of the program, beyond this year, is unknown.

Why provide a program for a preschool handicapped child when it is not mandated? Let me share with you a few reasons provided by school districts which have had the vision to provide such programs.

1. *Early intervention has a beneficial long term impact.* The early remediation of a handicap prevents it from producing other handicaps, particularly social and emotional ones that are secondary to the initial handicap.

Developmental deficits, if not remediated, tend to generate greater and more complex problems as time goes along. Early intervention can often prevent the development of inappropriate behaviors by teaching the child appropriate response patterns.

2. *Critical development occurs in the early years.* Research shows that there are critical periods in which certain skills are developed. Many of these periods occur during the first three to four years of life.

Dr. Benjamin Bloom, University of Chicago, has written, ". . . in terms of intelligence . . . about 50% of the development takes place between conception and age four, about 30% between ages four and eight, and about 20% between ages eight and seventeen . . . as much of the development takes place in the first four years of life as in the next 13 years."

3. *Families need support services.* Parents are in great need of support in the early years when they face the stress of having a handicapped child. They need help to find an array of services, to establish good parenting models, to learn effective educational techniques with which to develop competencies in educational and behavioral management, and to realistically deal with expectations for their child.

4. *Early intervention establishes a framework for the delivery of support services.* Programs of early intervention can offer functional and effective mechanisms for the delivery of special support services such as physical therapy, speech therapy and nutritional services. If support services are integrated into the intervention program the two can be coordinated to enhance their effect and avoid possible competing strategies.

5. *The potential economic savings are great.* Many children are able to enter regular education classes or are able to be served by less costly educational programs.

The Multi-Categorical Preschool has been a truly wonderful project for both the children and the parents. In many ways it has provided the kind of education that most closely meets American ideals for education.

We want our schools to educate the strongest possible citizens who can in turn maintain the strongest possible nation. This concept, however, is never to the sacrifice of the individual. The ultimate goal of education is to bring each of us to the realization of our full potential.

These ideals have truly been the goals of this preschool, where a handicapped child can be taught at a very young age, where he or she can be slowly nurtured at an individual pace, and where parents can be stimulated to believe in their child's potential. We have it right here in our community but we are about to lose it.

The development of a handicapped child is painstakingly slow. Sometimes the child flourishes, sometimes the growth is not so great and sometimes it hardly comes at all.

The chance to flourish, though, has to be given. We cannot just deal in labels—multiply handicapped, mildly mentally handicapped or physically handicapped, to name a few. These labels also have names—Julie, Bill, Jamie. My little boy is Andy. He has cerebral palsy.

I often think of these children as flowers in a garden. Many flowers come up strong, healthy, ready to burst forth into radiant bloom. Others struggle. Their leaves may be withered, they may have a small bloom or a blemish on the bloom. We could pull them up and discard them.

Sometimes we decide to nurture one or more just to see the outcome. What a joy when the struggling flower breaks forth into its bloom, whatever form it may take. We worked harder with it, but when we back off to admire we see it standing proud among the vast array of radiant blooms.

These handicapped children can bloom if nurtured appropriately. The preschool has brought Andy to bud and we anxiously await the bloom. As parents, we have learned how to look for the bloom which may come in strange and mysterious ways. For this experience we are thankful.

I hope that in a time of extraordinary inflation, a political turn to a more conservative government, and a return to the basics of education, you will find a way to meet the needs of these special children in our community. I do not envy your position. You are surrounded by many with needs of all sorts. I just ask you to remember a relatively small group of children with a very big need.

Henry Upper
Bloomington, Indiana

this column appeared in The Exceptional Parent August 1981 Vol. 11 #4

WEDNESDAY, FEBRUARY 25, 1981

New football coach, personnel director named

Special education changes

By MIKE LEONARD
H-T Staff Writer

Changes affecting three special education programs run by the Monroe County Community School Corporation were brought to the school board Tuesday night by special education director Jerry Keener.

TWO CHANGES involve funding, and Keener was happy to report to the board that while federal funding for the University Elementary pre-school program runs out this year, the state special education department has agreed to pay for the program for another three years.

Keener was hopeful that other money for the system's grant-funded consulting teacher program has been found, but the money is not assured.

In an area where funding is not the key issue, Keener recommended to the board the program for moderately handicapped handicapped students at Stone Belt Center be phased out, so the students may attend programs located within regular school facilities.

The pre-school program, which serves primarily handicapped children but includes non-handicapped peer models, has been a cooperative program of the MCCSC and Developmental Training Center of Indiana University. With $50,000 from the state in each of the next three years, the program will continue with two teachers and two aides. The current program coordinator and secretary provided in the federal grant will not be funded by the state.

THE CONSULTING teacher program has served 11 MCCSC schools in three years, providing funds to release one teacher selected from each school's staff to serve as an in-house reference person for questions about the special needs of students with problems. While its federal funding expires at the end of this year, Keener proposed that five would-be consulting teachers could identify 20 special education students who need special consulting services, which would enable the school system to receive additional federal and state funds, thereby financing most of the cost of the consulting teacher program.

Keener stressed that only students who are legitimately qualified for special education services would be identified, and a long and complex process, which includes the obtaining of parental consent, would be followed. He pointed out that the MCCSC has 9.4 percent of its students receiving special education services, federal estimates are that 12 percent of an average school population would need some kind of special education service, if student identification procedures uncovered all those eligible.

THE PHASING OUT of moderately handicapped students at Stone Belt is being recommended to meet the "least restrictive environment" directive in the authoritative, 1974 federal special education law. A similar class at Templeton elementary, Keener said, showed the moderately handicapped students blend in well and learn while giving the non-handicapped students a better understanding of, and compassion for handicapped students.

All changes proposed by Keener are not final, but lie in the hands of Superintendent Ronald E. Walton.

In other business, the school board heard and denied a request from the Bloomington area Growers' Association to use part of the University School parking lot in the summer for Wednesday evening farmers markets.

GROWERS' ASSOCIATION member David Blair explained that the City of Bloomington's Third Street Park farmers market does not provide enough time and space for growers to sell their fresh fruits and vegetables. Expansion at that site for more days than Saturdays is impossible because the parking lot next to the park is used by the city during the week, Blair said.

The growers had insurance coverage and seemingly schedule conflicts with school programs worked out in advance. Board president Ernest Horn quizzed Blair and wife Dee about many details of the proposed market at University, and expressed opposition to it. Board member Charles Hawk made a motion to approve the request, but no board member seconded it, and it was not approved.

The board also filled two school positions which have high visibility: Bloomington High School South football coach and the central administration director of personnel services.

DALE HUMMER, football coach at Fountain Central High School, was named head coach at B.H.S. South (see sports section).

Leslie L. Ray, currently superintendent of schools in Avon,

APPENDIX B

University Elementary School
Multi-Categorical Preschool

Speech/Language Report
December
1980

Diane Hamper
Speech/Language Therapist

DATE	STUDENT	ACTIVITY	TIME
12/1	Misha D.	Communication Board training	20 minutes
12/4	(individual)	Communication Board training	20 minutes
12/8		SICD Testing	20 minutes
12/12		SICD Testing	20 minutes
12/18		Communication Board Training	20 minutes
12/1	Benny L.	Pronoun production, was/were production, Language Sample	20 minutes
12/4	(individual)	Story recall, Spontaneous language sample	20 minutes
12/8		Testing PPVT	20 minutes
12/11		Action-Agent testing	20 minutes
12/18		Pronouns, was/were production	20 minutes
12/1	Sophie B.	/p,m,b/ words - production; modeling two word utterances	15 minutes
12/4	(individual)	/p,m,b,k,g,n/ and vowel sound; imitation of sounds	15 minutes
12/8		Continued consonant and vowel productions	15 minutes
12/11		SICD expressive scale testing	15 minutes
12/18		Continue consonant and vowel productions	15 minutes
12/1	Chris S.	Modeling /p,b,d/words	15 minutes
12/4	(individual)	Continued /b,d/ words	15 minutes
12/8		SICD Testing	15 minutes
12/11		Continue articulation of /b,d/ words	15 minutes
12/18		Articulation of /b,d/ words	15 minutes
12/1	(group)	Listening skills;spatial relationships	20 minutes
12/1	Emily N.	"Hi-Bye" shaping, interactive games	15 minutes
12/3	(individual)	"Hi-Bye" shaping, "up" response; means - end toy usage	15 minutes
12/11		"Hi-Bye" shaping/cause-effect toy usage	15 minutes
12/18		"Hi-Bye" shaping, interactive games	15 minutes
12/1	Charlie S.	Eye contact; language stimulation	10 minutes
12/4		Eye contact; Response to commands	
12/1	Latoya W.	Auditory recognition and discrimination activities	15 minutes
12/4	(individual)	Absent	
12/18		Auditory discrimination; and recognition of simple nouns	15 minutes

DATE	STUDENT	ACTIVITY	TIME
12/1	John S. (group)	Spatial relationships, categorization, plural productions	20 minutes
12/8	(individual)	Action/agent testing	15 minutes
12/18		PPVT Testing, Language Sample	
12/1	Heather F.(grp.)	Spatial relationships, categorization, plural productions	20 minutes
12/8		No therapy	
12/11	(individual)	Action/agent testing	20 minutes
12/18	(group)	Interactive story, spatial relations, plurals, present tense	20 minutes
12/1	Ronnie H. (grp.)	Spatial relations, categorization, plural productions	20 minutes
12/4		Didn't see	
12/8	(individual)	Action/agent testing	
12/18		Interactive story, spatial relationships, plurals, present tense.	20 minutes
12/8	Mike S.	Language screening	15 minutes
12/11	(individual)	Language Screening	15 minutes
12/18		Boehm Test of Basic Concepts	15 minutes
12/1	Bobby P. (grp.)	/f/ production, /I/ production	20 minutes
12/4	(group)	Language sample taken	20 minutes
12/8	(individual)	Action/agent testing	15 minutes
12/18	(individual)	PPVT testing	
12/1	Jamie S. (grp.)	/f/ production	20 minutes
12/4	(individual)	Language sample	20 minutes
12/8		Action/agent	15 minutes
12/11		Interactive story, spatial relations	15 minutes
12/18		Interactive story	15 minutes
12/4	Andy U.	Communication Board training	15 minutes
12/8	(individual)	SICD Testing	20 minutes
12/11		SICD Testing	20 minutes
12/18		Communication Board Training	15 minutes

University Elementary School
Multi-Categorical Preschool

Occupational Therapy Report
January
1981

Susan Noblet
Occupational Therapist

DATE	STUDENT	ACTIVITY	TIME
1/7	Heather W.	Upper extremity and oral exercises	20 minutes
	Misha D.	Oral activities at snack	25 minutes
	Emily N.	Bilateral upper extremity and sensory activities	20 minutes
	Andy U.	Developmental activities	30 minutes
	Sophie B.	Oral activities	15 minutes
1/9	Emily N.	Bilateral upper extremity and sensory activities	20 minutes
	Misha D.	Oral activities at lunch and snack	60 minutes
	Latoya W.	Sensory integration	20 minutes
	Heather W.	Pincer grasp and other Upper extremity activities	20 minutes
	Charlie S.	Reflex testing	20 minutes
	Andy U.	Wheelchair maneuvering	20 minutes
	Sophie B.	Oral activities	10 minutes
1/14	Heather W.	Upper extremity activities	20 minutes
	Misha D.	Oral activities	20 minutes
	Latoya W.	Sensory integration	20 minutes
	Emily N.	Bilateral upper extremity and sensory activities	20 minutes
	Charlie S.	Sensory activities	20 minutes
	Andy U.	Developmental activities	10 minutes
	Sophie B.	Oral activities	10 minutes
1/16	Latoya W.	Sensory integration and Activities of Daily Living	25 minutes
	Sophie B.	Oral activities	15 minutes
	Heather W.	Upper extremity activities	25 minutes
	Andy U.	Developmental activities	30 minutes
1/21		OTR Ill - No Therapy	
1/23	Latoya W.	Sensory integration	30 minutes
	Andy U.	Developmental activities and wheelchair maneuvering	30 minutes
	Heather W.	Upper extremity activities	30 minutes

DATE	STUDENT	ACTIVITY	TIME
1/28	Heather W.	Pincer grasp and upper extremity activities	20 minutes
	Latoya W.	Sensory integration	20 minutes
	Emily N.	Bilateral upper extremity activities	20 minutes
	Andy U.	Developmental activities	30 minutes
	Sophie B.	Oral exercises	10 minutes
1/30	Emily N.	Bilateral upper extremity activities	20 minutes
	Latoya W.	Sensory integration	20 minutes
	Heather W.	Feeding at snack, pincer grasp and upper extremity activities	20 minutes
	Andy U.	Wheel chair activities	20 minutes
	Sophie B.	Oral exercises	15 minutes
Month of January	All Students	Paperwork (including first semester reports)	4 hours

University Elementary School
Multi-Categorical Preschool

PHYSICAL THERAPY REPORT
APRIL
1981

Janet Greene
Physical Therapist

DATE	STUDENT	ACTIVITY	TIME
4/1		No therapy - ½ Personal Business Day	
4/8	Emily N.	Pre gait skills and techniques and Gross motor patterns	25 minutes
	Andy U.	Gross motor patterns of creeping, knee standing and pre giat skills	30 minutes
	Sophie B.	Sick	
	Heather W.	Gross motor skills and patterns - with pre gait skills	20 minutes
	Misha D.	Gross motor pre gait skills - balance and trunk strengthening	30 minutes
	Charlie S.	Pre gait skills and strengthening exercises	20 minutes
	John S.	Gross motor re-evaluation	15 minutes
4/15	Emily N.	Pre gait skills and techniques and Gross motor pattens	25 minutes
	Andy U.	Gross motor patterns of creeping, knee standing and pre gait skills	30 minutes
	Heather W.	Gross motor skills and patterns with pre gait skills	20 minutes
	Sophie B.	LE strengthening and pre gait exercises	20 minutes
	Misha D.	Gross motor pre gait skills - balance and trunk strengthening	30 minutes
	Charlie S.	In hospital	
4/22	Emily N.	CP Clinic visit	
	Andy U.	Sick with throat infection	
	Sophie B.	LE strengthening and pre gait exercises	20 minutes
	Heather W.	Gross motor skills and patterns with pre gait skills	20 minutes
	Misha D.	Gross motor pre gait skills - balance and trunk strengthening	30 minutes
	Charlie S.	Ill	
4/29		No therapy - Therapist at Stone Belt Center - Annual Case Reviews	

50

University Elementary School
Multi-Categorical Preschool

SOCIAL SERVICES REPORT
March
1981

Mary Walters
Social Worker

DATE	STUDENT	ACTIVITY	TIME
3/3	Kathy & Mike S.	Consultation with staff	30 minutes
	Ronnie H.	Consultation with staff	30 minutes
3/10	Kathy & Mike S.	Home visit	45 minutes
	Ronnie H.	Telephone conversation - staff	10 minutes
	Ronnie H.	Telephone conversation with mother	10 minutes
	Ronnie H.	Home visit	40 minutes
3/17		Consultation with staff	30 minutes
3/31		Consultation with staff	5 minutes
3/10	Joy M.	Interview with mother	1 hour
3/18	Joy M.	Case Conference - child to come to preschool	1½ hour

University Elementary School
Multi-Categorical Preschool

ADAPTED PHYSICAL EDUCATION
APRIL
1981

Kim Davis
Adapted PE Teacher

DATE	STUDENT	ACTIVITY	TIME
Every Tuesday and Friday during the month of April	Sophie B. Ronnie H. John S. Michael S.	One to one service --- Balance beam - Board walking skills - Ball skills - Running - Hopping - Jumping Practice Cooperative Play Skills - Body Image Body Parts identification Simple Exercises	20 minutes each 6 times during month of April
	Latoya W.	One to one service --- Visual tracking - Balance skills - eye/hand work - Body parts - Locomotor skills	20 minutes each 6 times during mo. of April
	Heather W. Misha D. Charlie S. Andy U. Emily N.	One to one service --- Eye-hand activities - Body parts - Walking w/ assistance - Ball Rolling/catching Vestibular stimulation (seated-standing)	20 minutes each 6 times during mo. of April
	Group - Chris Sophie, Ronnie Geoff, Mahrah Jamie, Heather Bobby, Adrianne Kathy	Social Skills - Cooperative Game Skills - Rhythm Activities - Obstacle Courses	30 minutes 6 times during mo. of April

APPENDIX C

Multi-Categorical Preschool

September 1 - October 31, 1980

September 1 - October 31, 1980

Enrollment:

Two children were Case Conferenced into the Preschool bringing the total number of handicapped children to 16, which is the capacity for labeled children during this third year of the project. Four spaces are available for non-handicapped children to participate as normal peer models. One child was recruited and placed as a peer model in Pat Barber's room during October. One child exited the program due to the family's re-location to Kentucky. We are in the process of Case Conferencing his replacement.

See Appendix A for breakdown.
See Appendix B for the various labels/handicapping conditions of the enrolled children.

Transportation:

Monroe County Community School Corporation provides transportation for 12 Preschoolers. Three children are transported by Richland-Bean Blossom School Corporation and one child is being transported by Spencer-Owen Community Schools.

Supplementary Services:

Ancillary services for the months of September and October were: Physical, Occupational and Speech/Language Therapy, Social Services, Psychological and Health Services from MCCSC. Adapted Physical Education and Health Services were provided by Indiana University Developmental Training Center and Deaf/Blind Resource was provided by Stone Belt Center.

See Appendix C for a breakdown of types and amounts of services.

Visual screening was conducted on eight children by the Optometry Clinic through IUDTC.

Contacts with Other Agencies:

Contacts took place in the form of meetings, visits or phone calls to personnel from the following agencies:

Indiana University:
- Early Childhood Education
- Speech and Hearing Center
- Optometry Clinic
- Special Education
- Educational Psychology

Riley Hospital
Cerebral Palsy Clinic
University Preschool
Program Prepare
Local Preschool/Day Care Centers
Occupational Development Center
Head Start
Stone Belt Center
Community Coordinated Child Care (4-C)

Indiana Preschool Administrators of Special Education (IPASE)
State Department of Public Instruction
State Department of Public Welfare
Indiana Vocational School

as well as MCCSC and IUDTC personnel.

There were 419 phone calls during this time. The majority of these were with parents of the Preschoolers and local agency personnel.

Visitors/Observers:

A total of 59 persons visited and/or observed the Preschool during this time.

Parent Involvement:

Parent involvement took place in the following ways:

- participation in IEP development during Case Conferencing procedures
- Parent/Teacher Conferences; many of them conducted in the homes by the Demonstration Teachers
- Preschool Parent Meeting on October 23, 1980; Ancillary staff presented
- University Elementary PTO activities
- Observation of classrooms
- Participation in field trips
- On going communication with Preschool staff through written messages and phone calls
- Three families are represented on the Preschool Advisory Board
- Follow up communication with those parents of children who have exited the program

Integration:

We are in the process of recruiting and placing 4 children as peer models in the two classrooms. One child has already been enrolled. (See Appendix A) Three children are mainstreamed in the Early Childhood Unit at University Elementary -- two boys attend Kindergarten in the afternoon and one child goes to Nursery School. Besides the daily activities that the elementary school offers in terms of the least restrictive environment, three children participate in music with the Kindergarten class on a weekly basis.

Coordination of the childrens' programs is maintained through observations, conferences and on going communication with the regular Preschool Staff. Evaluation of these integrative efforts are underway.

Staff Development:

The Preschool Staff participated in the following activities:

Preschool Staff Meetings; September 24, October 1, October 14 and October 30

Interdisciplinary Staffings; Misha, October 15, Andy, October 22

MCCSC Special Education Staff Meeting; October 8

Weekly Coordinator's Meetings; September 8, September 15, September 22, September 29; October 6, October 13, October 20

Weekly Planning Meetings (Sue, Gen, Nick); September 5, September 9, September 16, September 23, September 30; October 7, October 14, October 21

MCCSC and IUDTC Planning Meeting; October 10

Division Meeting; October 16

Management Seminar (Gen); September 18 and 19

Indiana State Teachers' Association In-Service Days; October 30 and 31

Assessment:

Developmental assessments were performed by the Demonstration Teachers to determine each child's programming needs. Those assessment instruments used were the 1) Portage Developmental Profile, 2) Indiana Home Teaching System, 3) Wabash, and 4) Brigance Diagnostic Inventory. Other assessments were performed by the ancillary staff on an "as needed" basis. These included physical and occupational therapy for treatment and programming purposes and speech/language evaluations. Adapted Physical Education assessments were also performed.

Data Collection:

Child data is collected daily by the Preschool Staff. Information is gathered in the following ways: a) daily anecdotal records written by the Demonstration Teachers and the Instructional Associates, b) weekly summaries and c) Goal Attainment Scaling on four children. The teachers are released from their classroom responsibilities every Tuesday and Thursday afternoons in order to ensure the time necessary for documentation and record keeping. Substitutes are hired for the classroom at these times.

In addition to this, summaries are written of observations of children in other settings, meetings with regular preschool staff as well as Parent/Teacher Conferences.

Training:

Five University students received training in the classrooms during these two months. Four of these students are Special Education Majors and the other student is majoring in Early Childhood Education.

One Special Education student from University Middle School assist the staff with lunch every day for 45 minutes.

Technical Assistance/Follow Up:

During these months the Preschool Staff conducted follow up observations of the children enrolled last year and now placed in school age programs through the Special Education Co-op. The staff met with the children's present teachers whenever possible and appropriate to offer technical assistance and discover the children's performance in their new setting.

At the request of a parent, follow up and technical assistance was conducted on a 5 year old girl attending Kindergarten in Bloomfield. This little girl was formerly in Program PREPARE.

Dissemination/Development:

- Preparation of TASH presentation on data-based instruction in Early Childhood Education
- Acceptance by the National CEC Convention of the proposal submitted on integration and normal peer models
- Slide presentation to the MCCSC
- Panel member discussing serving the preschooler in public schools - Indiana Rehabilitation Facilities State Conference, October 3
- Presentation and discussion of unique components of the Preschool to IPASE, September 17
- Indiana Home Teaching System - consultations and "adaptations"
- Indiana CEC proposal submitted on data-based instruction
- Consortium on the future of Preschool Education in Indiana, September 10
- Participation in a survey from UCLA on all model demonstration projects regarding services and staff training needs
- Participation in the development of the 4-C Child Care Training Course; dissemination of handbook
- Revision of FACT SHEET to reflect third year activities

Advisory Board:

The first Advisory Board of the school year was held on October 15 from 1:00 - 3:00 p.m. Discussion of continued funding ofter the third year resulted in a decision to a) prepare a petition to be signed by parents of the Preschoolers and b) present data to the MCCSC School Board.

Other:

An end-of-year report was submitted to the Office of S[illegible]l Education in October. It's purpose is to document the activities [illegible]he second year of the grant and submit it to our funding source.

Appendix A

Enrollment

BARBER

1. Sophie
* 2. Geoff
3. Ronnie
4. Benny
5. Chris
6. Charlie
** 7. Cardon
8. Andy
9. Heather

DESCH

1. Misha
2. Heather
3. Emily
4. Bobby
5. Michael
6. Jamie
7. John
8. Latoya

* Normal Peer Model

** Exited in October

Appendix B

CATEGORIES OF HANDICAPPING CONDITIONS

6 - Multiply Handicapped (MH)

3 - Mildly Mentally Handicapped (MiMH)

3 - Communication Handicapped (CH)

2 - Moderately Mentally Handicapped (MoMH)

1 - Severely/Profoundly Handicapped (S/PH)

1 - Physically Handicapped (PH)

2 - Normal Peer Models

Appendix C

University Elementary School
Multi-Categorical Preschool

Physical Therapy Report
September
1980

Janet Greene
Physical Therapist

DATE	STUDENT	ACTIVITY	TIME
9/10/80	Preschool	Checking student enrollment, medical forms and treatment area	1 hour
		Visit to Dr. Middleton for signing of forms for preschool	30 minutes
9/12/80		Preschool Meeting	1 hour
9/17/80	Emily N.	Read information on chart from PREPARE	45 minutes
	Andy U.	Gross Motor PT patterns of creeping, knee standing and pre-gait skills	30 minutes
	Heather W.	Pre-gait skills and techniques	15 minutes
	Sophie B.	Strengthening quads - through squats, stair climbing and LE exercises	15 minutes
	Charlie S.	Absent	
	John S.	Evaluation started	15 minutes
9/24/80	Emily N.	Gross motor patterns of knee standing, standing and pre-gait skills and strengthening	30 minutes
	Andy U.	Gross motor PT patterns of creeping, knee standing and pre-gait skills	30 minutes
	Heather W.	Pre-gait skills and techniques	15 minutes
	Sophie B.	Strengthening quads - through squats, stair climbing and LE exercises	15 minutes
	Misha D.	Gross motor pre-gait skills - balance and trunk strengthening	30 minutes
	Charlie S.	Absent	
	John S.	Coordination exercises	15 minutes

University Elementary School
Multi-Categorical Preschool

Adapted Physical Education
September
1980

Kim Davis
A.P.E. Teacher

DATE	STUDENT	ACTIVITY	TIME
Every Tuesday and Friday	Sophie B. Ronnie H. John S. Michael S.	One to one --- Assessment period of gross motor skills - balance - climbing, locomotor, ball and play skills. Also body parts and movement in space concepts -- over, under, through, etc. and rhythms	One to one 20 minutes each
	Heather W. Andy U. Misha D. Emily N.	One to one --- Assessment period of gross motor skills - balance -- elementary locomotor skills, ball skills, controlled movements, body parts, manipulation activities and rhythms	
	Cardon S. Chris S. Jamie S. Heather F. Bobby P. Sophie B. Ronnie H.	Group --- Social interaction - game skills - waiting turns following directions	30 minutes

University Elementary School
Multi-Categorical Preschool

Speech/Language Services
September
1980

Diane Hamper
Speech/Language Therapist

DATE	STUDENT	ACTIVITY	TIME
9/18	Misha D.	Receptive Vocabulary; imitation of motor skills (individual)	15 minutes
	Cardon S.	PPVT Test (individual)	15 minutes
	Sophie B.	Audiometric testing (individual)	15 minutes
	Emily N.	Observation (individual)	20 minutes
	Andy U.	Audiometric testing (individual)	20 minutes
	Chris S.	Goldman-Fristoe Articulation Test (group)	20 minutes
	Heather F.	SICD testing	20 minutes
9/22	Misha D.	receptive vocabulary (verbs); imitation	15 minutes
	Benny L.	Goldman-Fristoe Articulation Test	20 minutes
	Sophie B.	Oral/Motor imitation p,d,s, sounds at beginning of words	15 minutes
	Emily N.	Language stimulation	20 minutes
	Heather F.	SICD testing	20 minutes
9/29	Benny L.	TOLD Test	20 minutes
	Cardon S.	Goldman-Fristoe Articulation Test	15 minutes
	Sophie B.	Oral exercises; sound /m,s,p,/ imitation	
	Emily N.	Language stimulation	20 minutes
	Andy U.	Continued Testing	20 minutes
	Chris S.	Action pictures	20 minutes
	Ronnie H.	Naming and performing action words	20 minutes
	Heather F.	Naming and performing actions words	20 minutes
	John S.	Naming and performing action words	20 minutes
9/25	Sophie B.	Play therapy - stressing /mine, more, milk/	15 minutes

65

81

80

University Elementary School
Multi-Categorical Preschool

Social Services Report
September
1980

Mary Walters
Social Worker

DATE	STUDENT	ACTIVITY	TIME
9/9/80	Bobby P.	Conversation with Gen (arrangements)	10 minutes
9/9/80	Jamie S.	Telephone calls	5 minutes
9/10/80	Jamie S.	Interview	1½ hour
9/10/80	Jamie S.	Adaptive recording and scoring	30 minutes
9/16/80	Jamie S.	Case Conference	2 hours
9/19/80	Bobby P.	Home visit - Interview	1 hour
9/19/80	Bobby P.	Adaptive recording and scoring	30 minutes
9/23/80	Bobby P.	Confirm an appointment	10 minutes
9/24/80	Bobby P.	Case Conference	1½ hour
9/9/80	Ronnie H.	Met with mother to purchase school clothes	1 hour
9/8/80	Ronnie H	Telephone conversation with mother	

University Elementary School
Multi-Categorical Preschool

Occupational Therapy Report
September
1980

Susan Noblet
Occupational Therapist

DATE	STUDENT	ACTIVITY	TIME
8/29/80	Misha D. Heather W. Emily N.	Observed at lunch	45 minutes
9/10/80	Emily N.	O.T. Evaluation	30 minutes
	Heather F.	O.T. Evaluation	30 minutes
	Latoya W.	O.T. Evaluation	30 minutes
	Andy U.	Muscle inhibition and facilitation, UE activities	30 minutes
9/12/80	Misha D. Latoya W.	Observed in classroom	45 minutes
	Andy U.	Muscle inhibition and facilitation, UE activities	30 minutes
	Staff	Meeting on scheduling	30 minutes
	Misha D. Heather W.	Lunch	45 minutes
9/17/80	Heather W.	UE activities	20 minutes
	Misha D.	Oral exercises during snack	20 minutes
	Latoya W.	Sensory integration	20 minutes
	Emily N.	Bilateral UE activities	20 minutes
	Andy U.	Relaxation, UE activities	30 minutes
	John S. & Heather	Sensory integration and continuing evaluation	20 minutes
	Sophie B.	Oral exercises	10 minutes
9/19/80	Emily N.	Bialteral UE activities	20 minutes
	Latoya W.	Sensory integration activities	20 minutes
	Misha D.	Oral exercises during snack (also during lunch)	50 minutes
	Heather W.	UE activities, reciprocal motions	20 minutes
	Andy U.	Relaxation, UE activities	30 minutes
	John S.& Heather F.	Observed in classroom, reviewed papers	20 minutes
	Sophie B.	Oral exercises	10 minutes

67

DATE	STUDENT	ACTIVITY	TIME
9/24/80	Heather W.	UE activities	20 minutes
	Misha D.	Oral exercises during snack	20 minutes
	Latoya W.	Sensory integration	20 minutes
	Emily N.	Bialteral UE activities	20 minutes
	Andy U.	Relaxation and Ue activities	30 minutes
	Sophie B.	Oral exercises	10 minutes
9/26/80	Latoya W.	Sensory integration	20 minutes
	Misha D.	Oral exercises at snack	20 minutes
	Heather W.	Fine motor, reciprocal activities	20 minutes
	Jamie S.	Observation	20 minutes
	Andy U.	UE activitied, relaxation techniques	30 minutes
	Sophie B.	Oral exercises	10 minutes
	Misha D. & Heather W.	Lunch	15 minutes

University Elementary School
Multi-Categorical Preschool

SPEECH/LANGUAGE SERVICES
OCTOBER
1980

Diane Hamper
Speech/Lang. therapist

DATE	STUDENT	ACTIVITY	TIME
10/13	Bobby P.	Listening skills, group participation in songs	20 minutes
10/14	(group)	Testing PPVT and Goldman Fristoe Test of Articulation	30 minutes
10/16		Listening skills, expressive rise of "is" and "not"	20 minutes
10/23		/f/ sound production receptive vocabulary, listening skills	20 minutes
10/27		/f/ production, listening skills	20 minutes
10/13	Jamie S.	Group participation and cooperation,listening activities	20 minutes
10/14	(group)	Administered PPVT and Goldman-Fristoe	20 minutes
10/16		expressive construction, "is ___ing" and "not a ___"	20 minutes
10/20		Listening skills, I construction "is not a ___"	20 minutes
10/23		/f/ production in words, continued listening activities, I production	20 minutes
10/27		/f/ production, I pronoun, listening skills	20 minutes
10/2	Heather F.	Adjective - big/little, verb understanding and production	20 minutes
10/7	(group)	Adjectives - big/little-hard/soft; verbs-receptive/expressive	20 minutes
10/9		Testing SICD and Articulation testing	
10/13		Answering yes/no questions	20 minutes
10/16		Listening activities; hard/soft	20 minutes
10/20		Constructions "is ___ing" and "not a ___"	20 minutes
10/23		Telling about self emphasis on clothing	20 minutes
10/27		Constructions "is ___ing" and "not a ___"! hard/soft	20 minutes
10/2	John S.	Action words; big/little	20 minutes
10/7	(group)	Action words; big/little - hard/soft	20 minutes
10/9		Articulation testing Language sample	20 minutes
10/13		Constructions "is ___ing" and "not a ___" -- Group participation	20 minutes
10/16		Group participation; yes/no questions; construction "not a ___"	20 minutes
10/20		Hard/Soft - expressively construction, "no, not a ___"	20 minutes
10/27		Hard/Soft expressively; Group participation, Listening activities	20 minutes
10/6	Latoya W.	Observation	15 minutes
10/16		Multi-sensory exploration of simple objection; physical interaction	15 minutes

DATE	STUDENT	ACTIVITY	TIME
10/20	Latoya	Hide and seek activity to stimulate interaction; expressive skill	15 minutes
10/23	(individual)	Interaction and use of initial /b/ consonant	15 minutes
10/27		Interaction and Oral stimulation	15 minutes
10/2	Emily N.	Peek-a-boo adult led interaction, cause/effect with toy, object permanence	20 minutes
10/7	(individual)	Play stimulation activities, Using /i/ sound	20 minutes
10/9		Play- cause/effect	20 minutes
10/13		means end, object permanence --- cause/effect	20 minutes
10/16		Shaping "hi" and "bye" physically continued play stimulation	20 minutes
10/20		Object permanence, cause/effect, shaping "hi"and"bye" hand movements	20 minutes
10/23		Group participation	20 minutes
10/27		Object permanence cause/effect, olfactory stimulation	20 minutes
10/2	Misha D.	Signing for sock and baby	20 minutes
10/6	(individual)	Administered PPVT	20 minutes
10/9		Completed PPVT, modeling two words utterances	20 minutes
10/13		Signing baby and sock	20 minutes
10/16		Modeling agent/action - action/agent semantic functions	20 minutes
10/20		Introduction to communication cards	20 minutes
10/23		Communication card training	20 minutes
10/27		Action/agent - communication card training	20 minutes
10/2	Ronnie H.	Action words, big/little and "is" production	20 minutes
10/9	(group)	PPVT and articulation test administered	20 minutes
10/13		Hard/Soft, "is ___ing" and "not a ___" constructions	20 minutes
10/16		Constructions - "is ___ing" and "not a ___" and yes/no questions	20 minutes
10/20		Continued above constructions	20 minutes
10/23		Telling about ourselves with emphasis on clothing	20 minutes
10/27		Continued with "is ___ing" and "not a ___" and hard/soft	20 minutes
10/2	Chris S.	Action words; receptive/expressive; big/little	20 minutes
10/7	(group)	Action words; big/little; hard/soft	20 minutes
10/9	(individual)	Administered PPVT	20 minutes
10/13	(group)	Listening skills; group participation; hard/soft	20 minutes
10/16	(individual)	Production of initial /b/ and /d/ sounds	15 minutes
10/20	(individual)	action-agent modeling; production of /b/ and /d/ words; listening activities	20 minutes
10/23		/b,d/ words; action/agent words	
10/27		/b,d/ words; action-agent modeling, group participation in songs; hard/soft expressive/receptive	20 minutes

DATE	STUDENT	ACTIVITY	TIME
10/2	Andy U.	Imitation of oral movements; establish consistent receptive, ie pointing	20 minutes
10/13	(individual)	Receptive skills with pictures, oral exercises	20 minutes
10/16		Receptive skills, oral imitation	20 minutes
10/20		Receptive skills, oral imitation	20 minutes
10/23		Receptive skills with pictures for communication board	20 minutes
10/27		Receptive skills and pantomiming actions	20 minutes
10/2	Sophie B.	Play therapy model possessive and action word constructions	15 minutes
10/7	(individual)	Continued modeling action-agent and possessive construction emphasizing early learned words	15 minutes
10/13		Administered PPVT	15 minutes
10/16		Continued modeling two word phrases /n/,/m/ words	15 minutes
10/20		What's this questions form modeling two word utterances, /m/b/p/words	15 minutes
10/27		Single word productions of /m,p,b/ words	15 minutes
10/2	Cardon S.	Administered Goldman-Fristoe Articulation Test	15 minutes
10/6	(individual)	/m/ words; oral exercises	15 minutes
10/2	Benny L.	Production of sentence type "The boy is hitting the ball."	20 minutes
10/7	(individual)	Continued with above sentence; Initial /l/ words	20 minutes
10/9		Language sample collected	20 minutes
10/13		Initial /l/ words; Action words	20 minutes
10/16		Receptive training on "Wh" questions; action sentences; Initial /l/ words	20 minutes
10/20		Action sentences; Initial /l/ words	20 minutes
10/23		Monitor /f,v,d,k,g/ sounds in conversation; Initial /l/ and action sentence production	20 minutes
10/27		Expression of use of Who and What questions; Understanding of When questions	20 minutes
10/20	Charlie S.	Observation	10 minutes
10/23	(individual)	Eye contact; Language stimulation	10 minutes
10/27		Eye contact; Early language stimulation	10 minutes

University Elementary School
Multi-Categorical Preschool

Social Services Report
October
1980

Mary Walters
MCCSC Social Worker

DATE	STUDENT	ACTIVITY	TIME
10/7		Meeting with Gen Shelton	30 minutes
10/14		Preschool Meeting	15 minutes
10/21		Meeting with Gen Shelton	30 minutes
10/23	Chris S.	Home Visit with Mother	1 hour
10/24	Chris S.	Recording and scoring	30 minutes

University Elementary School
Multi-Categorical Preschool

Adapted Physical Education
October
1980

Kim Davis
Adapted P.E. Teacher

DATE	STUDENT	ACTIVITY	TIME
October Every Tuesday and Friday	Sophie B. John S. Ronnie H. Michael S. Heather W. Misha D. Latoya W. Charlie S. Emily N. Andy U.	Basic gross motor skills - ball skills - balance - trike riding body image/awareness - jumping - running races - cooperative play simple stunts/tumbling Balance (vestibular stimulation) locomotor patterns of movement - eye hand coordination - using both sides of body equally - ball handling skills (roll/catch)	one to one 20 minutes twice per week one to one 20 minutes twice per week
	Group - Bobby P. Heather F. Jamie S. Geoff G. Mahrah J. Sophie B. Ronnie H. Chris S.	Socialization skills - taking turns waiting Simple games - tag games Rhythms - songs (Farmer in the Dell) Tumbling Racing games Trampoline	Group 30 minutes twice per week

University Elementary School
Multi-Categorical Preschool

PHYSICAL THERAPY REPORT
October
1980

Janet Greene
Physical Therapist

DATE	STUDENT	ACTIVITY	TIME
10/1	Emily N.	Gross motor activities for Left side strengthening; gait and balance	30 minutes
	Andy U.	Pre-gait skills - knee standing and gait	30 minutes
	Heather W.	Gross motor activities - all 4's; knee walking and pre-gait skills	15 minutes
	Sophie B.	Lower extremety strengthening - stair climbing and gait skills	15 minutes
	Misha D.	Absent	
	Charlie S.	Absent	
	Preschool Staff	Meeting	2 hours
10/7	Emily N.	Gross motor for Left side strengthening - Gait and balance	30 minutes
	Andy U.	Absent	
	Heather W.	Gross motor skills with emphasis on reciprocal movement	30 minutes
	Sophie B.	Absent	
	Misha D.	Absent	
	Prepare Staff	Consultation	1 hour
	Charlie S.	Absent	
	John S.	Re-evaluation on gross motor skills	10 minutes
10/15	Emily N.	Gross motor activities with gait and balance emphasis	30 minutes
	Andy U.	Pre-gait skills - knee standing and gait	30 minutes
	Heather W.	Absent	
	Sophie B.	Lower extremity strengthening - stair climbing and gait skills	15 minutes
	Misha D.	Gross motor activities - balance and pre-gait skills	30 minutes
	Charlie S.	Absent	
	Preschool Staff	Staffing on Misha D.	1 hour
10/22	Emily N.	Absent (Riley visit)	
	Andy U.	Gross motor activities - knee standing and pre-gait skills	30 minutes
	Heather W.	Gross motor skills with emphasis on reciprocal movement	15 minutes
	Sophie B.	Lower extremity strengthening - stair climbing and gait skills	15 minutes
	Misha D.	Gross motor activities - balance and pre-gait skills	30 minutes
	Charlie S.	Pre-gait skills, standing and balance	30 minutes
	Preschool Staff	Staffing on Andy U.	1 hour
10/23		Preschool Parent Meeting	2½ hours
10/29		No school / Parent-Teacher Conferences	
October		Phone calls and Paper work regarding Preschool	1 hour

74

University Elementary School
Multi-Categorical Preschool

OCCUPATIONAL THERAPY REPORT
OCTOBER
1980

Susan Noblet
Occupational Therapist

DATE	STUDENT	ACTIVITY	TIME
10/1	Heather W.	Fine motor, reciprocal motions	20 minutes
	Latoya W.	ADL, sensory stimulation	20 minutes
	Andy U.	UE activities, relaxation	30 minutes
	Sophie B.	Oral exercises	10 minutes
		Preschool Meeting	60 minutes
10/3	Misha D.	Oral exercises at snack and lunch	60 minutes
		Consultation with CP Clinic	20 minutes
		Writing Report	40 minutes
	Heather W.	Sensory, fine motor	20 minutes
	Andy U.	UE activities, relaxation	20 minutes
	Charlie S	Evaluation	30 minutes
	Emily N.	Bilateral UE activities, sensory stimulation	20 minutes
	Sophie B.	Oral exercises	10 minutes
10/8	Heather W.	Fine motor, sensory	20 minutes
	Emily N.	Bilateral UE activities, sensory	20 minutes
	Latoya W.	ADL	20 minutes
10/10	Emily N.	Bilateral UE activities, sensory stimulation	30 minutes
	Latoya W.	Sensory stimulation	20 minutes
	Misha D.	Fine motor, Positioning, consultation with CP Clinic	40 minutes
10/15	Misha D.	Oral activities at snack	30 minutes
	Latoya W.	Dressing	20 minutes
	Emily N.	Bilateral UE activities, sensory stimulation	20 minutes
	Andy U.	Relaxation, UE exercises	30 minutes
	Sophie B.	Oral exercises	10 minutes
	Misha D.	Staffing	60 minutes
10/17	Emily N.	Bilateral and UE activities	20 minutes
	Latoya W.	Dressing, Sensory	20 minutes
	Misha D.	Oral exercises and feeding	60 minutes
	Andy U.	UE activities, inhibition	20 minutes
	Sophie B.	Oral exercises	10 minutes
10/22	Andy U.	UE activities, inhibition	20 minutes

DATE	STUDENT	ACTIVITY	TIME
10/22 (cont.)	Charlie S.	Oral evaluation	20 minutes
	Sophie B.	Oral exercises	10 minutes
	Andy U.	Staffing	60 minutes
10/24	Emily N.	Bilateral UE activities	20 minutes
	Latoya W.	ADL	20 minutes
	Misha D.	Oral and feeding	60 minutes
	Heather W.	Fine motor, reciprocal motion	20 minutes
	Andy U.	UE activities, inhibition	20 minutes
	Charlie S.	Oral, tactile activities	20 minutes
	Sophie B.	Oral Exercises	10 minutes
10/23		Preschool Presentation	2 hours

APPENDIX D

Summary of Findings from the Parent Study

Introduction

A survey research approach was used to assess parent reactions to the Multicategorical Preschool program, along with certain issues pertaining to preschool special education. The survey was conducted in late spring, after the close of public school. Eleven of twenty families responded to the survey, resulting in a 55% return rate on which the analysis was based. The total number of persons responding was fifteen. The analysis sample was composed of four fathers (27% of the sample), nine mothers (60% of the sample), and two grandparent guardians (13% of the sample).

Results

Finding #1: Preschool Experience Facilitates the Development of Handicapped Children

When respondents were asked if the Multicategorical Preschool Program had helped their child's development 87% said definitely yes whereas 13% said definitely not. Parents who felt their child's development had been helped by the program listed improvements across a wide range of behaviors which generally related to a significant problem that the child had experienced. Areas of improvement cited by parents included language, speech, gross motor, school and home adjustment, socialization, self-help, attention span, following directions, increased awareness, and so on. One parent seemed to sum it all up in saying that the child had "improved beyond anything we could have done at home."

The 13% responding that the program had not helped their child's development felt that the preschool had not prepared their child for a first grade placement. The child in question had been placed in a primary

moderately mentally handicapped classroom rather than a regular first grade classroom as desired by the respondents. The case study that had been developed on the child in question suggests that the respondents held unrealistic expectations regarding the child's capabilities as well as unrealistic expectations for probable future placement of this child.

Finding #2: Preschool is Helpful to the Child's Family

When respondents were asked if the Multicategorical Preschool had been helpful to their family, 87% replied definitely yes whereas 13% replied definitely not. This was the same distribution of response as that obtained for the first finding.

Parents who felt that the program had been helpful to their family cited a variety of reasons. These parents (a) were appreciative of home training and guidance, (b) felt the program had relieved parent frustrations, (c) felt their child was more independent now at home, (d) felt that family relationships were better now at home, (e) felt that their child was happier now, (f) felt they understood their child better now, (g) felt they could cope with their child's handicap better which made home life easier, (h) appreciated the preschool's responsiveness to parent input, and (i) appreciated that the preschool's staff had shared the responsibility for helping raise a handicapped child.

The 13% responding that the program had not been helpful to their family were the same respondents who responded earlier that the program had not helped prepare the child for first grade. In this case, the respondents stated that the program had not helped the family because the child had not been able to learn the ABCs.

Finding #3: Preschool Experience Recommended for Other Families with Handicapped Children

When respondents were asked if they would recommend the Multicategorical Preschool to other families with handicapped children, 80% said definitely yes and 7% said probably yes. Thirteen percent did not respond to this issue; these non-respondents had previously provided negative judgments as to the program's benefits for handicapped children and their families. These respondents did comment however that they felt their child did not need to be in the preschool and that the preschool was not appropriate for their child.

Finding #4: Preschool Experience is a Good Investment for the Taxpayer

When respondents were asked if projects such as the Multicategorical Preschool are a good investment for the taxpayer, 100% of the respondents replied definitely yes. There were no non-respondents or negative judgments on this issue. One couple commented that "We think the taxpayers should know more about such great projects."

Finding #5: Parents Favor MCCSC Continuation of the Preschool

When respondents were asked if they would support the staff's efforts to convince the local MCCSC school board to continue the Multicategorical Preschool, which would require local education agency funding, 100% of the respondents said definitely yes. There were no non-respondents or negative judgments on this issue.

Finding #6: Parents Feel Indiana Public Schools Should Serve Preschool Handicapped Children

When respondents were asked if Indiana Public Schools should serve preschool handicapped children, 87% said definitely yes, 6.5% said probably yes, and 6.5% were uncertain. A father who was uncertain about

this issue did not understand the implication of this issue regarding the current permissive nature of public education for preschool handicapped children. He felt "that some organization that has the proper qualifications should provide this service."

Finding #7: Parents Support Passage of State Legislation Mandating Public Education of Preschool Handicapped Children

When respondents were asked if they would support efforts to get state legislation passed for public education of preschool handicapped children, 87% said definitely yes, 6.5% said probably yes, and 6.5% were uncertain. This was exactly the same response pattern as that obtained for the issue on public education of preschool handicapped children.

A final question addressed to the parents asked them what they liked best about the Multicategorical Preschool. The following paraphrases and quotes are representative of parent opinions about the value of the Multicategorical Preschool:

- The program has dedicated personnel.
- The program prepared my child for public school.
- The program provides a normal atmosphere for handicapped children.
- The program has excellent facilities.
- My child learned more here than in any other school.
- The program communicates and cooperates with parents.
- The program is managed in a professional manner.
- The concern shown for my child's development.
- "Having directed activities at a necessary age of development in the handicapped child -- the preschool age!"

- "The care and understanding the children get from the staff."

- "The program gives a handicapped child a better shot at life. I know my child has a will and a place in the outside world. (My child is) not like the rest of the children, but she will make it."

- "It gives the children a chance to help themselves. To try to be an equal person. Its good training for them to ready themselves for the real school life. Kindergarten or first grade would probably give up on these precious children. They need all the help they can get. I thank God for this school, not only for (my child), but for the other children; I have seen them improve."

APPENDIX E

Goal Attainment Scaling As a Method for Assessing Instructional Effectiveness With Moderately And Severely Handicapped Preschool Children

by

Susan K. Shuster	Associate Professor of Education, Indiana University and Project Director, Monroe County Multicategorical Model Preschool
Nicholas Fitzgerald	Project Evaluator
Gen Shelton	Project Coordinator
Pat Barber	Demonstration Teacher
Susan Desch	Demonstration Teacher

ABSTRACT

Conventional assessment methods have serious limitations for measuring program impact with special education populations, and do not contribute much to managing effective IEP service delivery. This paper focuses on the utility of goal attainment scaling (GAS) as a methodology for meeting these dual needs of special educators. A field test of GAS in a multicategorical preschool program pointed to the relevance of the method for improving IEP implementation effectiveness with severely impaired preschool students. However, there were serious limitations for using GAS as a measure of program impact. The advantages of GAS as an intervention function with severely handicapped students are discussed along with considerations for improving its application to IEP management.

The information presented in this paper was prepared pursuant to a contract with the Office of Education, U. S. Department of Health, Education and Welfare, Bureau of Education and Welfare, Bureau of Education for the Handicapped, Handicapped Children Early Education Program (OEG-007801299). Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Goal Attainment Scaling As A Method For Assessing Instructional Effectiveness With Moderately and Severely Handicapped Preschool Children

The Federal legislation under PL 94-142, the Education of the Handicapped Act, has mandated the utilization of Individualized Education Programs (IEPs) for special education services as a means for making the education system more responsive to the handicapped student. Regulatory provisions within the mandate are also designed to stimulate the use of evaluation procedures which are sensitive to the unique characteristics of the handicapped child. This situation has compelled service providers and program evaluators to develop assessment techniques that are not only relevant to the monitoring of IEP implementation but to the measurement of program impact as well.

Child progress as an index of program impact has typically been measured on the basis of student achievement. In the general population, standardized achievement tests have adequately served this need. The advantages of standardized achievement tests are well known in terms of being representative of a specified population, possessing adequate reliability for group assessment, and providing reasonable content validity for covering a range of objectives often found in many regular education programs. However, standardized instruments are often inadequate for assessing the progress of young handicapped children (Jones, Gottlieb, Guskin, & Yoshida, 1978).

Both limitations of the child as well as limitations of existing instruments are major factors influencing the validity of standardized assessment with handicapped children (Simeonson, Huntington, & Parse, 1980). Some handicapped children are simply untestable by formal assessment procedures whereas children with multiple impairments are often

evaluated unfairly by instruments constructed for children with single modality handicaps. An attractive solution has been to use different instruments for different children in measuring program impact, on the assumption that similar tests are interchangeable and will result in comparable scores. This assumption does not currently enjoy much empirical support (Ramsay & Fitzhardinge, 1977; Eippert & Azen, 1978).

The usefulness of standardized assessment instruments in early childhood special education has been limited primarily to informing placement decisions, and to some extent, the development of IEP documents. But there is nothing inherent in an IEP which explicates how such a document is to be utilized for planning and directing instruction (Tracy & Pappas, 1980). Standardized assessments are not designed to help the classroom teacher make ongoing instructional decisions, and consequently do not contribute much as a means for managing the implementation of IEPs.

In an era of accountability spawned by PL 94-142, both service providers and program evaluators in early childhood special education sit on twin horns of a dilemma. Can a measurement technology be developed which serves both outcome assessment (sensitive to diverse children & handicapping conditions) and which can also guide IEP implementation? Currently available technologies are remiss in attending to these dual concerns of special educators. The purpose of this article is to report research from a model demonstration project at Indiana University which developed a technology based on goal attainment scaling toward exploring a resolution to this problem.

SETTING DESCRIPTION AND PROGRAM CONTEXT

Following the passage of PL 94-142, the Indiana legislature anticipated revising its state law on public education of the handicapped (Rule S-1) toward compliance with the Federal mandate for serving the preschool handicapped population by 1980. In planning for this anticipated statewide expansion of preschool service delivery, the Indiana University Developmental Training Center (IU/DTC) was funded by the Bureau of Education for the Handicapped in 1978 to develop a model preschool demonstration project which could be implemented and replicated within Indiana's public school system. One of the objectives of the demonstration project was to develop a technology of data-based instruction which could be used to estimate program impact on child growth while also displaying relevance for IEP monitoring. This assessment technology was to be developed for public school consumption.

The problem of developing an assessment technology to meet both requirements of impact appraisal and IEP monitoring was magnified by the nature of the program itself. The preschool was multicategorical in design. Its two classrooms served a total of 20 children whose developmental levels ranged from severely/profoundly mentally handicapped through mildly handicapped, in addition to integrating nondelayed children as well. Thus, designing an assessment technology for this program population additionally required consideration of the wide variation in children's developmental abilities.

Program development planning was assisted by a process evaluation study[1] which generated a variety of issues and concerns with relevance to the design of an assessment/instructional monitoring system within a public school context. The need to develop a more appropriate

assessment technology was acknowledged by program staff, but its development required sensitivity to teacher concerns. To wit, the system had to be relevent to teacher instructional needs, not require major re-training, and be capable of assimilation into the daily instructional routine. In responding to these identified concerns, goal attainment scaling was proposed as a methodology in measuring student progress and for managing the implementation of IEPs.[2]

GOAL ATTAINMENT SCALING

Little empirical work had yet been undertaken to document the applicability of goal attainment scaling for handicapped children since its introduction into the special education literature by Carr (1979). At the time that we were considering the development of an assessment technology for our own program, the available evidence on goal attainment scaling (GAS) suggested that it was a potentially useful approach for measuring both individual child progress and for assessing overall program effectiveness. However, the applicability of GAS for data-based instruction and IEP monitoring was an open question. Yet the approach embodied in GAS seemed relevant to our assessment needs, fit with the mission of our demonstration project, and appeared adaptable to the IEP system utilized in the preschool. In short, GAS methodology was worth exploring for relevance to the special education community.

Prior Development of Goal Attainment Scaling:

Goal Attainment Scaling (GAS) was initially developed by Kiresuk and Sherman (1968) as an assessment methodology designed to offset measurement problems in the area of community mental health program evaluation. Its initial developers proposed GAS as a viable alternative to the use of a fixed battery of evaluation measures which were

often insensitive and irrelevant to individual patient characteristics and treatment goals. GAS methodology then, offered an alternative to the use of a common measurement approach across dissimilar cases. It also offered a means for utilizing evaluation data to gain insights into treatment progress which could then be used to refine individual treatment plans based on feedback from progress data.

GAS has been used for over a decade in mental health program evaluation and the methodology has been scrutinized carefully by evaluation researchers (Cytrynbaum, Ginath, Birdwell and Brandt, 1979). GAS methodology had matured and had been refined during this period. It seemed timely to extend its application to other areas of human service delivery.

Brief Overview of GAS Methodology:

The basic approach of GAS requires defining a unique set of goals for each client or student, and specifying a range of outcomes that indicate progress toward goal attainment. The GAS approach may readily be contrasted with the more conventional psychometric approach of defining general program goals to be measured across all clients or students. With GAS, the criterion of program success is the extent to which individual goals are achieved rather than achievement of uniform criteria assessed for all clients or students.

The steps in designing a GAS system are relatively simple. These steps are illustrated here in the context of a special education preschool program. Table 1 provides an example of a goal attainment scale chart designed for a severely and multiply handicapped preschool student.

Insert Table 1 here

The first step is goal selection. The goals in Table 1 were selected from the student's IEP in three different behavioral domains.

The second step is to weight each of the goal areas to reflect differential importance for the childs development. The system used in Table 1 involved rank-ordering with the highest number carrying the most weight; alternative weighting systems are available (Romney, 1976). The weighting system is important for computing goal attainment scores.

The third step is to scale each goal area to reflect levels of goal attainment. Five scale levels are recommended as shown in Table 1. The scale provides a continuum of likely treatment outcomes ranging from least favorable (current baseline behavior) to most favorable (yet least probable). The scale levels are then assigned numerical values in which -2 is the current baseline, zero is the most likely outcome predicted, and +2 represents the most favorable (yet unlikely) outcome.

The final step involves rating the student on goal attainment at the termination of the program. This rating can be done by the classroom teacher or by an external evaluator. A progress score can be computed by multiplying the terminal goal scale value by the weight for that goal area; alternatively, a change score can be computed in like manner by substituting a gain score in terms of total levels attained for the scale score. Such scores can then be manipulated statistically for either individual or group comparisons in estimating program impact.

DEVELOPMENT OF GAS AS AN ASSESSMENT TECHNOLOGY IN A MULTICATEGORICAL PRESCHOOL

The GAS system as outlined in the last section was further developed in the IU/DTC preschool project during its second and third year of

Federal funding. A pilot program was initiated during the second half of the 1979-80 school year (Phase I) to train staff in the use of GAS and to determine an optimal implementation strategy for a field test of the method during the project's third year (Phase II). The field test was conducted during the 1980-81 school year and was guided by insights developed from the pilot program.

PHASE 1: THE PILOT PROGRAM

Phase I involved teacher inservice training in the use of GAS followed by final implementation of the method.

Inservice Training:

Staff inservice training in GAS methodology began by disseminating an operational example of the technique to teachers in January, 1980.[3] This was followed by a series of four training sessions conducted by the project evaluator. Sessions that received the greatest emphasis involved issues associated with goal scaling and the need to empirically validate baseline levels. The project evaluator then assisted the teachers by monitoring GAS implementation and by providing them with feedback on their efforts. As a collaborative experience, both teachers and the evaluator learned from each other.

Trial Implementation:

A target behavior sheet (TBS) was developed as a record keeping system for data collection in the use of GAS. Figure 1 illustrates a TBS designed for the child whose goal chart appears in Table 1.

Insert figure 1 here

During the winter and spring of 1980, GAS was pilot tested with four handicapped children who ranged from severely to mildly mentally

handicapped. Following baseline observation, goal scales were developed for each child. Instruction was then implemented at the baseline level in each goal area and data were formally collected at least twice per week. Frequency counts were used to determine percentage scores for aquisition, maintainence, and generalization in which 80% success over one week defined criterion for each of the three learning stages. Once generalization was attained within a given scale level, instruction proceded toward the next level. Staff relied heavily on the results/comments section of the TBS in evaluating instructional effectiveness. These data were then analyzed to plan further instruction and/or to modify the current instructional approach.

Following trial implementation, the TBS records were analyzed and staff were interviewed by the project evaluator to determine further directions for development and use of GAS methodology. The data suggested that GAS could be applied most productively with those children who were the most difficult to intervene with, that is, the moderately and severely handicapped. Secondly, the method appeared to be more applicable for assessing instructional effectiveness in IEP monitoring rather than as a valid measure of program impact. With this latter recognition, GAS appeared to have more potential as a technology for assessing the accuracy and relevance of a teacher's task-analyses as well as being useful for judging the appropriateness of goal selection in defining optimally teachable objectives.

In sum, the pilot phase suggested that GAS was optimally useful as a means of specifying and structuring IEP implementation by encouraging a behavior-analytic, data-based approach to the instruction of severely and moderately mentally handicapped children. These considerations were reflected upon in planning the field test of GAS during Phase II.

PHASE II: THE FIELD TEST

The pilot program data suggested that GAS served an intervention function better than it did an impact evaluation function. This was consistent with most of the validity studies conducted on GAS methodology in the field of community mental health services (Cytrynbaum et. al. 1975). Consequently, GAS methodology was implemented in Phase II primarily as a means for structuring the implementation of IEPs with children who could optimally benefit from a highly systematic, data-analytic approach of direct instructional intervention.

Three severly mentally handicapped children and one moderately mentally handicapped child were selected for GAS intervention in Phase II. These four children had made little progress in the preceding year which both frustrated and puzzled their teachers since the staff felt that these children were capable of demonstrating significant progress with a direct instruction approach. In order for intervention to be effective with these children, the staff felt a need to get a better "handle" on their learning dynamics, and consequently these children were seen as good candidates for the field test of GAS.

The field test conducted over the 1980-81 school year was implemented in a manner similar to that described earlier for the pilot program. At the end of the school year, the field test data were analyzed as a series of single subject designs by the project evaluator. The TBS data were also content analyzed for their narrative portions and teachers were interviewed. The analysis focused primarily on the utility of GAS methodology as a viable intervention function. A secondory focus of the analysis concerned implications for utilizing GAS as a method of assessing

program impact. The following sections report on the findings from the field test.

GAS Methodology as an Intervention Function

The GAS system enabled the teachers to optimize their instructional approaches with the more impaired children by providing a systematic process with which to better understand inter-relationships between attributes of the child, task and setting. As a systematic process for directing IEP implementation, teachers were able to incorporate the data collected from the use of GAS as a means of refining their conceptualization about task implementation and the effectiveness of alternative instructional approaches. As an analytic process for instructional hypothesis testing grounded in prior implementation data, GAS demonstrated itself as a methodology for improving instructional effectiveness with children most resistent to intervention. Figure 2 schematically illustrates the process by which GAS methodology serves a viable intervention function.

Insert Figure 2 Here

It should be noted that preliminary study of each target child during baseline assessment contributed significatly to the development of "best guess" goal scale charts. Extended baseline study, ranging from one to three weeks, enabled the teachers to better understand their target children and to identify important "negative" bahaviors which needed to be eliminated prior to GAS implementation. The practice of extended baseline observation also generalized to the process of using GAS as an IEP implementation monitoring system by instilling a disciplined, analytic attitude toward teaching severely impaired children.

The following list of statements briefly summarize the kinds of advantages associated with GAS as an IEP implementation monitoring system:

1. Using extended baseline assessment to plan sequential steps for IEP implementation.

2. Discovering a child's preferred learning style.

3. Determining the level of complexity involved with implementing alternative instructional plans.

4. Identifying sensory, motivational, and reinforcer preferences of the child

5. Validating optimal sequencing of instructional steps and tasks.

6. Identifying the reasons for success or failure of an instructional procedure.

7. Matching task difficulty to a childs ability within the context of a specific setting.

8. Using task analyses in a longitudinal manner for coordinating related curriculum strands in an IEP.

Scaling/Task Progression Issues:

The data for each of the four children involved in the field test are illustrated in Figures 3-6. These graphs describe individual child progress in goal attainment over time. It should be noted that three of the goal charts (25% of the total) attained the +2 level after an average of four months, and consequently had to be rescaled. These three goal charts required rescaling because of significant under prediction for the expected outcome level when goal scales were initially designed. Conversely, 75% of the goal charts exhibited reasonable accuracy in scaling predicted outcomes.

An analysis of scale level progressions was then conducted to examine factors that might account for differential success in goal attainment. Scale progressions were categorized as involving either a quantitative shift (change in degree of proficiency within the same skill type) or a qualitative shift (changing to a different kind of skill proficiency). The vast majority of scale progressions that were achieved involved quantitative shifts (86%) with an average time of three weeks was required for criterion for generalization. The remaining 14% of achieved scale progressions involved qualitative shifts in which an average of ten weeks was required for criterion learning. The implication seems rather straightforward.

Scale progressions designed for quantitative skill shifts are much more likely to realize success than if qualitative skill shifts are involved in progressing from one task level to the next.

A similar analysis was then conducted on scale progressions that were not achieved in the original GAS programs. Interestingly, of those scale progressions never achieved after an average of 20 weeks implementation, 75% involved qualitative skill shifts. An examination of these qualitative skill shifts revealed that, without exception, they all involved maturational developments toward higher level cognitive or motor stages. In short, the unachieved qualitative scale progressions were more under nature's control than they were susceptible to teacher nurturance.

For special educators considering the use of GAS methodology as an intervention function with severely impaired students, the following steps are worth considering in designing goal scales. These steps derive from the data on scaling and task progression. In designing a GAS program, consider the following sequence of issues in scaling task progressions:

1. Are instructional goal levels teachable and under the control of the teacher? If not, modify or discard.

2. Do scale progressions involve quantitative skill shifts? If not, modify or discard.

3. Some scale progressions may necessarily involve qualitative skill shifts. If so, is the child emerging toward a state of readiness where she/he can benefit from direct instruction? Additionally, are outcome levels scaled in perspective to differential degrees of difficulty?

4. Is it realistic to scale predicted outcomes over the duration of an entire school year? If not, consider a more realistic time frame such as one semester.

Implications for GAS as a Measure of Program Impact:

Evaluations can be useful for improving a program's implementation and/or for rendering a judgment of worth or merit as to the program's

success and impact on clients. These distinctions were first articulated by Scriven (1967) as formative versus summative evaluation. Whereas formative evaluation relates to program development and improvement, summative evaluation refers to the rendering of value judgments on overall program success. In this paper, we have essentially been arguing the merits of GAS as a formative evaluation methodology to improve instructional delivery for severely impaired children within an IEP framework. As to the merits of GAS for summative program evaluation, we tend to diverge from Carr's (1979) advocacy of the method for assessing program impact. Rather we must conclude that GAS leaves much to be disired as a valid approach to summative impact appraisal.

In order for GAS to be valid for summative evaluation purposes, at least two conditions would have to be met. The first condition requires reasonably accurate prediction of the expected outcome levels. Given the available knowledge about a student, a teacher should be able to consistently predict the most likely outcome from intervention, without having to re-scale a GAS program. The second condition requires reasonable comparability across goal scales and GAS programs in terms of relative difficulty in task progression. That is, in order to compare children in deriving an index of program impact, different goal scales and GAS programs can not exhibit significantly divergent degrees of difficulty. For summative appraisal, there must be a common basis for measurement.

The data reviewed in the preeceding section do not tend to support either of the conditions that would minimally be necessary for using GAS in a summative evaluation mode. As to the first condition, there was at least a 25% error rate in predicting expected outcome levels resulting

In re-scaled programs. Under-prediction is not unreasonable from the standpoint that teachers may feel a need to demonstrate progress for children who are highly resistent to intervention; additionally, human behavior is simply not easy to predict even for the most skilled of teachers. As to the second condition, it was clearly evident that many of the goal scales and GAS programs were not comparable in that some were simply much easier to show progress with than were others. Goal scales involving qualitative task progressions were much more difficult than those scales composed of quantitative progressions. In our final analysis, we must agree with our collegues in the area of community mental health evaluation (Cline et al. 1973; Kaplan & Smith, 1977; Cytrynbaum et al. 1979) that GAS methodology does not lend itself well to the task of summative program evaluation.

SUMMARY AND CONCLUSIONS

The field testing of goal attainment scaling (GAS) methodology within a multicategorical preschool setting generated data relevant to judging the applicability of the method for special education instruction and program evaluation. Our data suggest that GAS methodology contributes significantly to facilitating instructional effectiveness for IEP implementation with moderately and severely handicapped students. However, there appear to be serious limitations of the method when applied as an outcome measure for purposes of summative program evaluation.

The major utility of GAS lies in providing a data-analytic structure for IEP implementation. As an instructional procedure, GAS can be used to systematically discover learning styles and patterns unique to diverse handicapped children. GAS provides the special education teacher with a structure for systematically incorporating such discoveries into the

instructional process. By using GAS methodology in the instructional process, task analyses can be improved by integrating child and setting variables into the design of instructional objectives along with their implementation procedures. Consequently, GAS methodology provides an empirical framework for not only simplifying instructional procedures with handicapped children, but the method also helps to validate the effectiveness of instructional designs by encouraging teachers to operationally test alternative instructional hypotheses.

As an instructional planning methodology, GAS helps the special education teacher to temper expectations for child progress. In planning for IEP implementation, GAS can be utilized in a series of decision steps for assessing the validity of instructional plans over a specified time frame. The methodology is useful, therefore, in helping teachers to be more realistic about what a child can achieve, how, and when, by encouraging an analytic attitude toward considerations of task progression factors.

A final area in which GAS methodology can be judged as a useful intervention mechanism in special education is in its potential to facilitate consistent instruction across goal areas. Several goals can be implemented in a coordinated fashion by different staff members during a common time frame. This process helps to coordinate interdisciplinary programming, not only in IEP implementation but in planning for the phasing in of a next series of tasks.

While there are notable advantages of GAS as an instruction methodology, there does exist one primary limitation for its use in this context. This limitation is that GAS lends itself best to behaviorally oriented objectives, as it is designed to do. Instructional objectives of a holistic nature are not easily incorporated into the system. Given this consideration, teachers of a non-behavioral persuasion may find GAS

methodology somewhat alien to their pedagogic philosophy.

There is nothing inherent in a child's IEP that allows a special education teacher to develop strategies which can be used to achieve goals established in such a document. GAS methodology provides a needed data-analytic structure for developing viable strategies useful in monitoring the success of goal attainment within the IEP framework. However, the validity of GAS as an intervention methodology does not extend to its use as a good measure of summative program impact. Issues of outcome predictability and goal scale comparability are fairly irrelevant for using GAS in a therapeutic intervention function; Yet threats of invalidity in these areas make GAS methodology an inappropriate approach for appraising the success of overall program outcomes.

NOTES

1. Fitzgerald, N.B. "A Process Evaluation of the Monroe County Multicategorical Preschool Program." Model Programs Development and Dissemmation Unit, Developmental Training Center, Inidana University, Bloomington, Indiana. November, 1979.

2. Fitzgerald, N.B. "Year Two Evaluation Plan for Assessing Child Progress: Goal Attainment Scaling." Model Programs Development and Dissemmation Unit, Developmental Training Center, Indiana University, Bloomington, Indiana. January, 1980

3. Fitzgerald, N.B. "An Example of Goal Attainment Scaling." Model Programs Development and Dissemmation Unit, Developmental Training Center, Indiana University, Bloomington, Indiana. January, 1980.

REFERENCES

Carr, R.A. Goal Attainment Scaling as a Useful Tool for Evaluating Progress in Special Education. Exceptional Children, October, 1978, 88-95

Cline, D.W., Rouzer, D.C., and Bransford, D. Goal Attainment Scaling as a Method for Evaluating Mental Health Programs. American Journal of Psychiatry, 1973, 130, (1), 105-108.

Cytrynbaum, S., Ginath, Y., Birdwell, J., and Brandt, Z. Goal Attainment Scaling: A Critical Review. Evaluation Quarterly, 1979, 3, (1), 5-40.

Eippert, D.S., and Azen, S.P. A comparison oftwo developmental instruments in evaluating children with Down's syndrome. Physical Therapy, 1978, 58, 1066-1069.

Jones, R.L., Gottlieb, J., Guskin, S., and Yoshida, R.K. Evaluating Mainstreaming Programs: Models, Caveats, Considerations and Guidelines. Exceptional Children, May, 1978, 588-601

Kaplan, J.M., and Smith, W.G. The Use of Attainment Scaling in the Evaluation of a Regional Mental Helath Program. Community Mental Health Journal, 1977, 13, (2), 188-193.

Kiresuk, T., and Sherman, R. Goal Attainment Scaling: A General Method for Evaluating Comprehensive Community Mental Health Programs. Community Mental Health Journal, 1968, 4, (6), 443-453.

Ramsay, M., and Fitzhardinge, P.M. A comparative study of two developmental scales: The Bayley and the Griffiths. Early Human Development, 1977, 1, (2), 151-157.

Romney, D.M. Treatment Progress by Objectives: Kiresak's and Sherman's Approach Simplified. Community Mental Health Journal,1976, 12, (3), 280-290

Scriven, M. The Methodology of Evaluation. In R. Tyler, R. Gagne, and M. Scrivan (Eds.), Perspectives in Curriculum Evaluation (AERA Monograph No. 1). Chicago, IL.: Rand McNally, 1967

Simeonsson, R.J., Huntington, G.S., and Parse, S.A. Assessment of children with severe handicaps: Multiple Problems - Multivariate Goals. The Journal of the Association for the Severely Handicapped, 1980, 5, (1), 55-72.

Tracy, M.L., and Pappas, V.C. IEPs as Management Tools. In R.L. Dickson (Ed.) The Individualized Education Program: Concepts on its Use as Management, Instructional and Planning Tools.

- TABLE 1 -

Scale: A Cognitive Wgt. = 3	Scale: B Self-Help Wgt. = 2	Scale: C Motor Wgt. = 1
Will hold object** when placed in hand & labeled by teacher.	Will take arms out of sleeves of coat when held by an adult.	Will walk upstairs using handrailing & sighted guide.
Will pick up object when labeled by teacher.	Will take off coat when pulled off shoulders & unfastened.	Will walk downstairs using handrailing & sighted guide.
Will pick up named object when 2 objects are presented*.	Will pick coat up off of floor & put in cubby.	Will walk up & down stairs using handrailing & alternate feet independently.
Will pick up named objects when 3 objects are presented*.	Will hang coat on hook with help.	Will walk with class to playground without adult holding hand.
Will pick up 2 named objects when 4 objects are presented*.	Will put coat on with help.	Will walk with class to lunch without adult holding hand.

** Objects used so far: blocks, car, cookie, spoons, cub, doll, bells, book, shoe, socks, puzzle, hat, pennies, and keys.

* High interest to low interest items.

- FIGURE 1 -

TARGET BEHAVIOR SHEET

Name: Latoya
Target Behavior: Motor Scale, Level 0
Evaluator: Head Teacher/Instructional Associate
Materials: 8 stops leading out from classroom to sidewalk

Date: November 18, 1980
Time: 8:30 a.m., 11:15 a.m., noon, 2:45 p.m.

Implementation Strategies:

1. Place Latoya's hand on the railing. Stand beside her and give her the command for "up" or "down."

2. Help get her started if necessary, by manipulating her feet.

3. Let her know that you are beside her by squeezing her hand briefly, but tell her, "Latoya, you do it, all by yourself."

4. Reward verbally, e.g., "Good girl! You did it. You went down (up) the steps!"

Criteria for Success: 4-5 trials each (80%)

Results/Comments: Up: 4/5
Down: 2/5

This was a difficult task for Latoya today because the steps were snow-covered. We helped her by holding on to her hand. Going down is more difficult than going up. We will be here for awhile and will continue working toward the "0" level.

Latoya loves going up and can do it alone with only a very slight verbal and physical cue to get her going. Going down and holding the railing is no problem. But alternating feet is difficult for Latoya to remember to do. She still must have more motor control to go down and must concentrate hard to keep from stumbling. She still needs a verbal cue to alternate feet instead of one step at a time.

— FIGURE 2 —

GAS METHODOLOGY AS A PROCESS
FOR MONITORING IEP IMPLEMENTATION

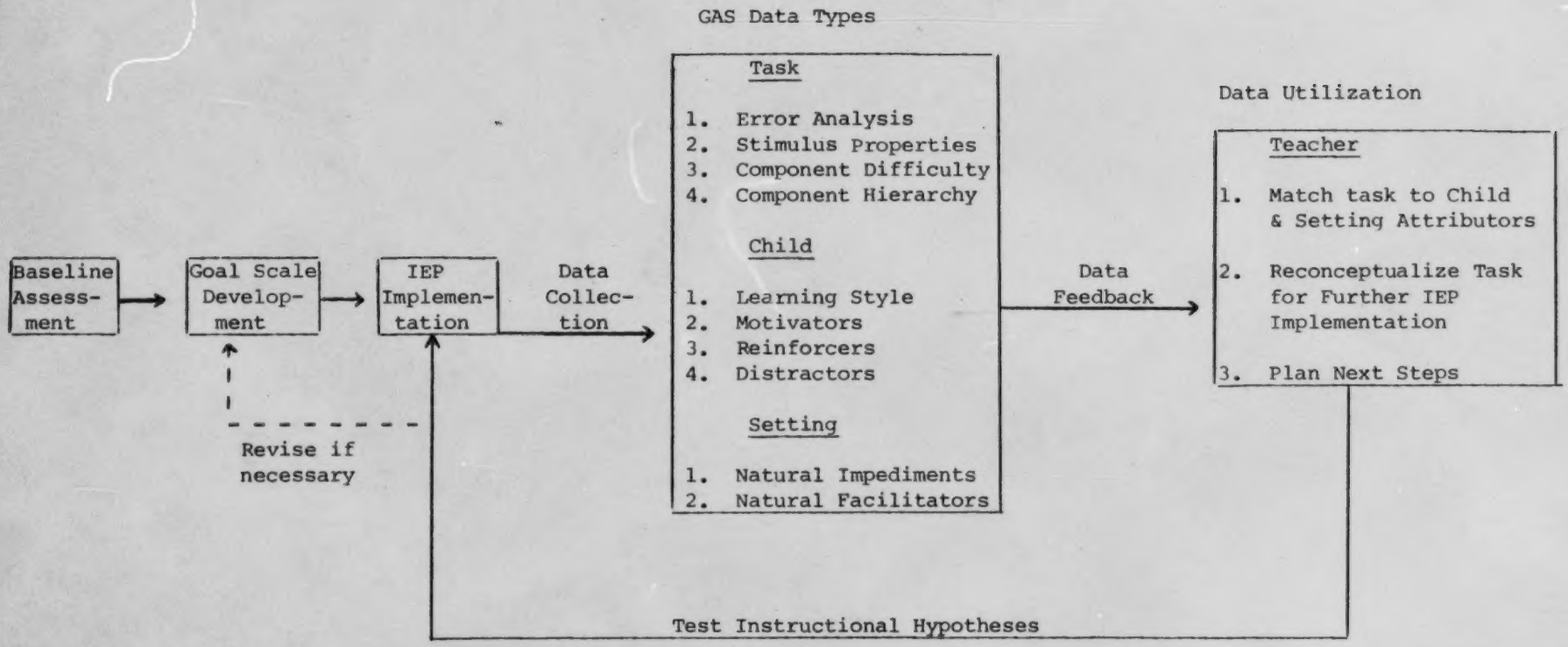
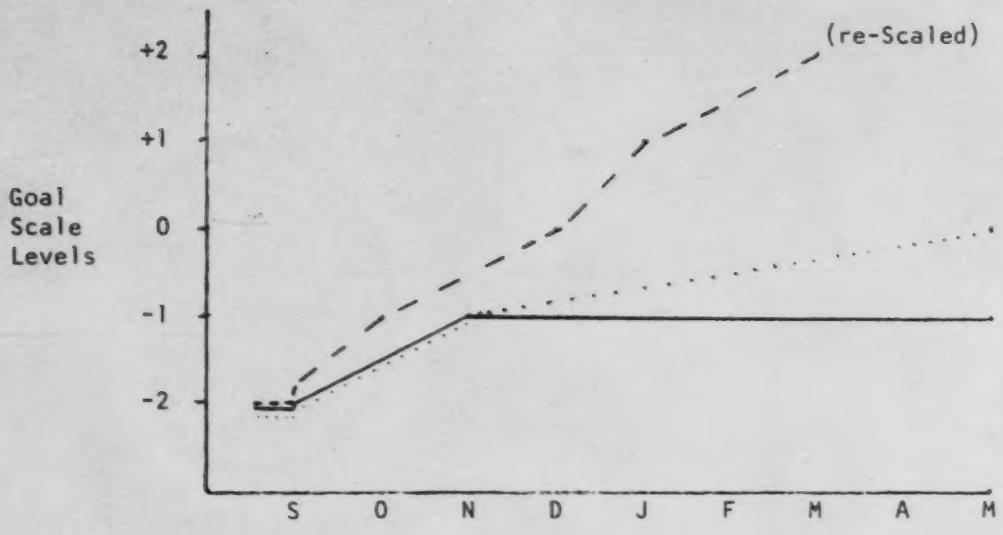
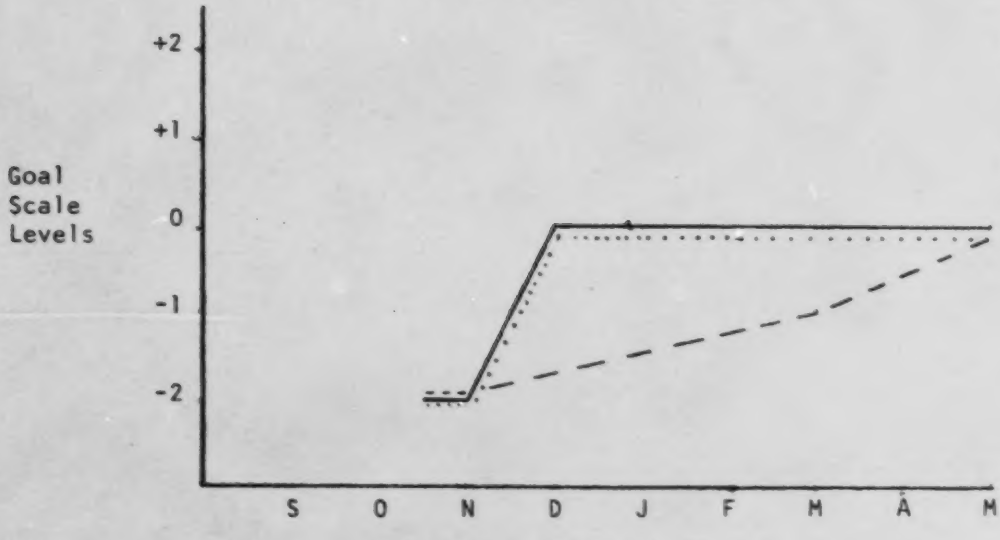


Figure 3: Latoya's Goal Attainment



Gross-Motor*: _____
Self-iielp:-----
Cognition:.....

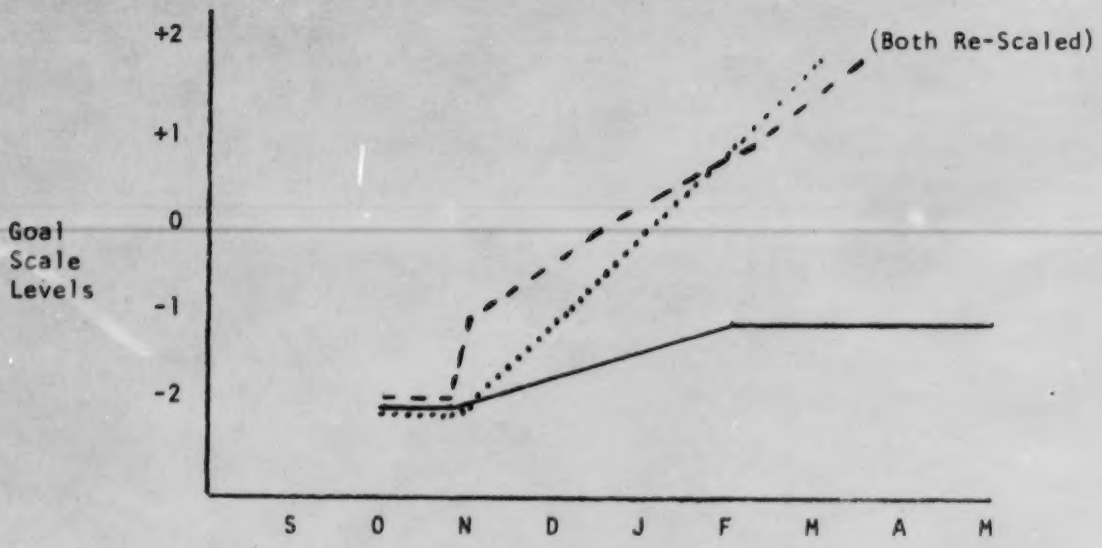
Figure 4: Emily's Goal Attainment



Cognition*:_____
Fine-Motor: ------
Self-Help*:.....

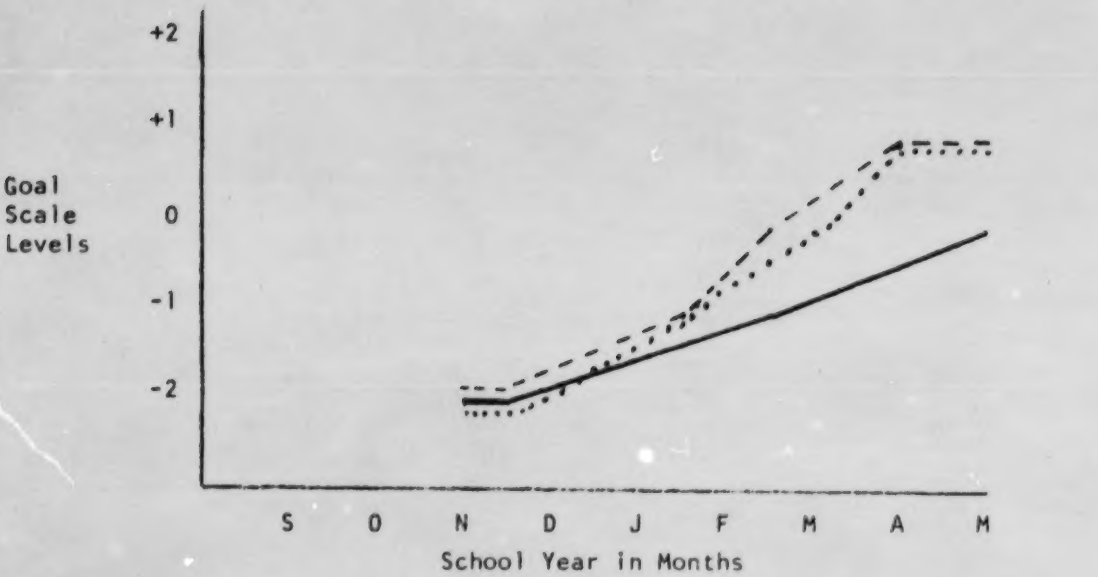
*Non-Achieved Goals

Figure 5: Sophie's Goal Attainment



Cognition*: ———
Self-Help: - - -
Fine-Motor: .....

Figure 6: Heather's Goal Attainment



Cognition: ____
Gross-Motor: -----
Self-Help: .....

*Non-Achievement Goals

APPENDIX F

Child Growth Study

The developmental growth of each child in terms of program impact on each child during the 1980-81 school year was documented using a case study approach. Case studies were developed for all children. The case study approach attempted to infer program impacts on the child based on the program processes experienced by that child. Twenty such case studies are included in this Appendix. These case studies were reviewed by the Demonstration Teachers and modified accordingly to enhance the validity of the final drafts.

A cross-case analysis was conducted over the twenty case studies to discover patterns of program effect. This analysis involved several steps. First, each case study was re-analyzed concerning relative child progress of behavioral domains within the child. These domains included five areas common to each child: social, self-help, motor, communication, and cognition. Second, within-child progress was rated across the five domains from most to least progress. The area with most progress was assigned a 5 and the area of least progress was assigned a 1. If multiple areas were about the same in terms of progress, a "tie" score was given, consisting of the average of the ranks involved. This was largely an intuitive, judgmental process based on the validity of the child's case study. The process of ranking did not imply anything about degree of differences over progress areas in terms of "interval measurement" information. The rankings simply say "more progress," but not necessarily "how much progress." As such, rankings for one child are not necessarily equivalent to another in terms of amount of progress or kind of progress.

The third step was to organize this numerical information into tabular form. A table was constructed for each handicap category as a reflection of the severity of developmental delay. For each category, numerical totals,

averages, and ranges were computed within each behavioral domain. This descriptive, quasi-statistical information was then used to infer impacts on child progress as related to "degree of handicap."

Table 1: Developmental Progress for Nondelayed Children

	Cognition	Language	Social	Self-Help	Motor
Geoff	5	4	2	2	2
Mahrah	5	4	2	2	2
Adrianne	5	2.5	2.5	2.5	2.5
Chris	5	4	2	2	2
Total	20	14.5	8.5	8.5	8.5
Mean	5	3.6	2.1	2.1	2.1
Range	0	1.5	.5	.5	.5
Rank	1	2	3	3	3

Table 2: Developmental Progress for Mildly Handicapped Children

	Cognition	Language	Social	Self-Help	Motor
Heather	5	4	2	1	3
John	5	3	4	1	2
Bobby	3.5	3.5	3.5	3.5	1
Jamie	4.5	4.5	3	1.5	1.5
Mike	4	4	4	1.5	1.5
Kathy	5	2.5	2.5	2.5	2.5
Benny	5	3	4	1.5	1.5
Total	32	24.5	23	17.5	13
Mean	4.6	3.5	3.3	1.8	1.9
Range	1.5	2	2	7.5	2
Rank	1	2	3	5	4

Table 3: Developmental Progress for Moderately Handicapped Children

	Cognition	Language	Social	Self-Help	Motor
Chris	5	4	3	1.5	1.5
Sophie	4.5	4.5	2.5	2.5	1
Ronnie	4.5	4.5	3	1.5	1.5
Total	14	13	8.5	5.5	4
Mean	4.7	4.3	7.8	1.8	1.3
Range	.5	.5	.5	1	.5
Rank	1	2	3	4	5

Table 4: Developmental Progress for Severely/Profoundly Handicapped Children

	Cognition	Language	Social	Self-Help	Motor
Latoya	4.5	1.5	1.5	3	4.5
Misha	4.5	4.5	2.5	2.5	1
Emily	2.5	2.5	2.5	2.5	5
Andy	2.5	5	2.5	2.5	2.5
Charlie	3	3	3	3	3
Heather	3	1.5	1.5	4.5	4.5
Total	20	18	13.5	18	20.5
Mean	3.3	3	2.3	3	3.4
Range	2	3.5	1.5	2	4
Rank	2	3	5	3	1

Table 5: Rank-ordering of Relative Growth by Handicap Category for each Curriculum Area.

	1st	2nd	3rd	4th	5th
Nondelayed	Cognition	Language		Social/Self-Help/Motor	
Mild HDCP	Cognition	Language	Social	Motor	Self-Help
Mod. HDCP	Cognition	Language	Social	Self-Help	Motor
S/P HDCP	Motor	Cognition	Language Self-Help		Social

Discussion

Tables 1-4 depict child growth aggregated for each handicap category based on the case study data; the growth data were then rank ordered for each handicap category across the five curriculum areas. Table 5 summarizes the child growth data by rank-ordering child growth for each handicap category across the curriculum areas.

Nondelayed Child Progress

The table 1 data show that these children all made the most progress in the cognition area. The language area evidenced the next largest gains for most of these children, the exception being one child whose entering skills were exceedingly well developed. Gains in social, self-help, and motor skills for these children were about equal, yet minimal, due to high levels of skill proficiency at program entry.

Mildly Handicapped Child Progress

The table 2 data show that the largest gains were in cognition, the

least gains were in self-help and motor skills, with social skill development showing an intermediate degree of gain. For these children, self-help and motor skills were generally fairly well developed at program entry.

Moderately Handicapped Child Progress

For these children, the table 3 data show most gains occurring in the cognition and language areas. The least gain was noted in motor development. Social and self-help skills evidenced a moderate degree of growth.

Severe/Profound Handicap Child Progress

The table 4 data suggest that these children generally gained the most in motor skills, however, there was a good degree of variability across these children. The cognition area showed the next highest degree of gain, which in the case of the severely handicapped, (often), fine-motor developments for the most part as precursors to perceptual/cognitive development. The cognition and motor areas can not be differentiated for practical purposes.

Language and self-help skills cluster together as the next area of growth, second to cognition/motor. Again, a great deal of variability is evident, particularly in the language (communication) domain.

Social skill development showed the least gain. These data are fairly consistent, with not too much variability present.

Replication of Second Year Results

Table 6 below provides the same data as table 5, except the former table is based on 1979-80 data rather than 1980-81 data. A comparison of tables 5 and 6 show a complete replication for nondelayed children. These data also replicate findings for the mildly and moderately handicapped, with slight variation in motor, social, and self-help skills which are

probably due to a combination of measurement error and individual differences across children and classroom conditions over the two cohorts. It could be speculated that greater gains in social development for the mildly handicapped in 1980-81 (as opposed to 1979-80) can be attributed to the increased presence of non-delayed playmates in the preschool setting.

The replication data for the severly handicapped are consistent only in the motor area, where in each year gains were greatest in motor skills. In both years, there was a high degree of variability among the severely handicapped, moreso last year than this year.

Table 6: Rank-Ordered Child Progress for 1979-80

	1st	2nd	3rd	4th	5th
Nondelayed	Cognition	Language		Social/Self-Help/Motor	
Mild HDCP	Cognition	Language	Motor	Social	Self-Help
Mod. HDCP	Cognition	Language	Social	Motor	Self-Help
S/P HDCP	Motor		Cognition/ Selp-Help/ Social		Language

Misha

Background

Misha is a multiply handicapped five-year old girl who was diagnosed very early as having cerebral palsy. She is severely-profoundly handicapped and exhibits severe communication and physical impairments. Misha has been enrolled in the Preschool for the last two years.

Program Processes

Misha has received OT, PT, APE and S/L services this past year. A special signing and communications program was developed and implemented for Misha this year along with her regular IEP which focused on cognitive, self-help and motor skills.

Program Outcomes

Social

Misha began the year with a preference for isolate play and as the year progressed, more parallel play emerged. She continued to prefer adult interactions, possibly, because adults tend to be less threatening and more understanding of her limitations. Social gains were evident in Misha's being able to participate in group games, attend to music and stories for 5-10 minutes, take turns and cooperate with adult requests. Misha's developmental level at program exit was in the 2½ to 3½-year old range.

Communication

A signing and verbal communication program was begun in September at which time Misha could sign about three words, and her verbal vocabulary was also about three words. By spring, Misha had a verbal vocabulary of about 13 words ranging from food objects to play objects to

abstractions (colors & numbers). Her signing ability had also increased greatly. At program exit, Mish was functioning in the two-year old range of development.

Cognitive/Fine Motor

Academic work emphasized matching and discrimination of shapes and colors along with fine-motor manipulation of objects in a 1-1 instructional setting to reduce distractability (Misha could not work independently). Misha's gains were evident in matching colors, shapes and textures, grouping objects by size, discriminating spatial, length, size and weight concepts and increasing her manipulative dexterity as in tracing and in stacking rings on a peg. She exited the program at about a three-year old level of development.

Self-Help

Toilet-training and feeding programs were instituted with Misha beginning in the fall. Little progress was noticed with the toileting program, possibly inhibited by a lack of follow-through at home. A "cognitive" approach (using verbal commands and directives) was successful with Misha in the feeding program which resulted in her learning to use a fork, spoon and a napkin.

Dressing skills increased in Misha mastering zipping skills and being able to do simple undressing. Grooming/hygiene skills were also developed for drying her hands with a towel and being able to brush her hair.

Misha exited the program functioning in the two-year old range of development.

Gross-Motor

Progress in knee-walking was facilitated by the use of a "walker" and help from the PT & APE. Misha was able to use the walker for standing,

but lack of strength, balance and coordination prevented her from becoming an independent walker. Misha increased her mobility with the walker in being able to knee/walk; she also developed skills for using a rocking horse and could sit in a chair by herself. She remained at the one-year old level at the end of the year.

Conclusions

With the exception of toileting skills, most major gains appeared to result from the implementation of specific, structured, individualized programs designed for Misha.

Mahrah

Background

Mahrah is a non-delayed four-year old girl who was enrolled in the Preschool as a "normal peer model." She has been in the program for one year, starting in November.

Program Processes

Mahrah received an individualized instructional program although no formal IEP was developed for her.

Program Outcomes

Social

At first, Mahrah was very shy and would interact only with Geoff. Her play style began as isolate or parallel. She began to interact with Heather after a month or so, and this took the form of a big sister or mother role in showing Heather how to play with toys. Initially, Mahrah preferred to interact primarily with adults.

After a couple of months, Mahrah began joining Geoff and Benny during classroom free play when play was structured by an adult and definite roles existed, e.g., "dress-up" or playing "house." When Geoff and Benny resorted to rough "Super Heroes" activities, Mahrah would generally leave to play with Heather or an adult.

Until Kathy enrolled, Mahrah had no female playmates near her developmental level, and she would generally play by herself or interact with Heather in "mothering" or interact with adults. Her interactions with the other handicapped children tended to be of a discipline-authority in giving directions or commands; she would also "perform" for them. When Kathy arrived, Mahrah would try to involve her in cooperative,

pretend play, but Kathy was still not developmentally ready which resulted in Mahrah playing a big sister or mothering role with her too.

Although attracted to Geoff, he would generally not let Mahrah play with him and Benny. But in the afternoons when Benny was mainstreamed in kindergarten, she and Geoff would play together in quiet, pretend games like playing "house."

By spring, Mahrah had become more successful at involving Kathy and Sophie in cooperative types of activities. She still tended to play the big sister role however. With Geoff and Benny, Mahrah was beginning to play the role of "peacemaker" and facilitator in smoothing out conflicts between the two boys.

Mahrah was an excellent model in free play for setting an example of appropriate play behavior and for helping teachers in clean-up. By spring, Mahrah had actually involved Benny in clean-ups which he rarely tended to do before on his own.

Communication

Mahrah eventually proved to be an excellent language model, particularly effective for Kathy in language group. Mahrah learned a few new skills as well like rhyming, using irregular plurals, opposite analogies and telling a story from memory.

Cognition/Fine Motor

The independent nature of the work groups precluded much active modeling by Mahrah unless specifically directed by an adult. She was very tolerant of negative behaviors by her handicapped peers which she appeared to understand as their way of communicating since her work group peers were not very verbal. At work group, Mahrah would spontaneously model at times by showing others how to do an activity, being watched by peers or in Mahrah directing a child to "behave" properly.

She also picked up a few academic skills like naming letters and shapes; learning to print her first name; discriminate long vs. short; draw an elaborated figure or picture; building a 10-block tower; and assembling 6-piece puzzles. She also learned how to stay "in-the-lines" when coloring a picture.

Self-Help

Mahrah was rather accomplished in this area at entry. She did learn how to complete dressing except for buckling,and she learned how to use a knife for spreading. Mahrah enjoyed helping her peers in this area by helping them dress and comb their hair, etc.

Motor

Mahrah was somewhat of a "tomboy" and learned a few additional gross-motor skills like catching/bouncing a ball, skipping and using a swingset.

Conclusions

Mahrah was an excellent "peer model" for all activities which can probably be attributed to her nurturant personality, her age (which did not place her too much above her delayed peers) and her sex (little girls are encouraged to be more nurturing and accommodating to helping teachers). She also increased her academic skills while enrolled in the Preschool which should prepare her adequately for kindergarten.

Adrianne

Background

Adrianne is a non-delayed five year-old girl who was enrolled in the Preschool as a "Normal Peer Model." Adrianne was enrolled in the Preschool for one year.

Program Processes

An IEP was developed for Adrianne which, in addition to the usual preschool curriculum areas, also included objectives for handwriting, mathematics and reading skills.

Program Outcomes

Social

Adrianne was minimally effective as a social role model. She was apprehensive of her handicapped peers and rarely interacted with them during free time; she preferred to play with Chris, the other normal model and also her neighborhood playmate. Her interactions with handicapped peers were limited to the latter's initiation in which Adrianne then played a mothering or bossy, disciplinary role. She only developed a minimal relationship with one mildly handicapped girl (Heather) which was largely due to Heather's initiative; this relationship was rather unproductive due to Adrianne's intolerance for Heather's aggressiveness. As the year grew on, the handicapped children increasingly ignored Adrianne, and at times, outright hostility toward Adrianne was observed.

Adrianne was a socially sophisticated girl for her age. Some of her skill acquisition included asking permission, apologizing without reminder, explaining game rules to others, etc.

Communication

Adrianne did function well as a language model not only because of her well developed skills in this area but also because she liked to talk and give the current answer. The structure (cooperative, teacher directed) of the language group also facilitated Adrianne's ability to be a good language model. She achieved all IEP objectives set for her in this area, which, incidentally, were probably already achieved by her at program entry.

Cognition

Adrianne was relatively advanced in this area. The individualized, independent structure of the work groups did not lend itself to facilitating Adrianne's role as an instructional model. Because of her social relationships, she was more likely to model for her non-delayed playmate than for her handicapped peers.

Adrianne did learn a variety of skills such as ordering (size, length, texture, numbers, shades, etc.), counting to 20, drawing shapes, recognizing her name in print, various classification skills and printing her first name.

Self-Help

Adrianne learned how to dress herself completely and also how to set a table.

Motor

Adrianne was well advanced motorically. She learned a few gross-motor skills like hopping, use of a swing set and walking a balance beam.

Conclusions

Adrianne's inability to function well as a role model was related to her initial attachment to her non-delayed playmate as well as her personality. The classroom structure facilitated her ability to be a

good language model but not an instructional model in her work group.

Michael

Background

Michael is a six year-old boy of low-normal intelligence who was initially referred to the Preschool from Head Start because he needed a more consistent, structured and individualized program of instruction. He is a small child for his age due to "congenital growth retardation", but his abilities are all relatively age-appropriate with the exception of his conceptual learning ability for which he has been labeled communication handicapped. Michael's handicap was judged to be environmentally rather than organically induced. Mike has been in the program for two years and will attend regular first grade next year.

Program Processes

Mike received S/L & APE services in addition to his regular IEP schedule of activities. He was also part day mainstreamed in kindergarten this year.

Program Outcomes

Social

Mike exited the program about a year below age-level. In the Preschool, Mike was a good role model for unsupervised cooperative play, would follow classroom rules and would explain the rules of game and activities to his peers. In short, Mike was the classroom leader. In kindergarten, Mike made a good social adjustment and was accepted by his peer group for the most part. Kindergarten seems to have been a positive contribution to Mike's social maturity.

Communication

Mike's growth this year was largely in the area of receptive

language where he was able to understand elaborate sentences, questions and directions. His expressive language was not quite as good as his receptive language, and he exited the program about one year below age-level. This year Mike learned to relate his daily experiences, tell a story from memory, become facile in rhyming, etc.

Cognition

Mike exited about a year below age-level but had learned much this past year. Mike was an independent worker in both Preschool and kindergarten. He began the year with capabilities in the area of concrete concepts and progressively learned more abstract concepts to prepare him for first grade work, much of which was facilitated by the kindergarten experience. At the upper level of his skill acquisitions, Mike was able to read about five words, could count to 20, could print his name and was able to copy or name most letters and numbers expected of a 5½ year old child.

Self-Help

Mike's self-help skills were about at age level at program exit. This past year he was able to master some of the more complex skills for a preschooler like buckling, buttoning and lacing. He was also able to learn self-help survival skills for first grade by mastering skills necessary for using a cafeteria lunch room independently.

Motor

Mike's gross-motor skills were impeded by his small stature and growth rate involving strength, balance and coordination. He was able to pick up some new playground gross-motor skills like skipping, steering a wagon and climbing a ladder. His kindergarten experience helped him a lot with cutting and pasting of simple shapes.

Conclusions

Kindergarten mainstreaming helped a lot with Mike's social maturity and gains in academic and language area. His structured program at the preschool also facilitated much of his learning in the academic domain. Mike's is a success story as evidenced by his return to a regular education classroom which would not have been accomplished without his experiences provided through the Preschool.

Jamie

Background

Jamie is a five year-old mildly mentally handicapped boy labeled communication handicapped. He was referred by Head Start because he needed a more consistent and individualized program. After one year in the Preschool, Jamie tested out in the low normal range of intelligence. He has been re-enrolled in the Preschool to help with his communication problems.

Program Processes

Jamie received S/L & APE services in addition to his IEP schedule of activities.

Program Outcomes

Social

Jamie tended to be a behavior problem all year by exhibiting aggressiveness, impulsiveness, teasing, etc. Time-out procedures were utilized to manage his negative behaviors which were inconsistently effective but may have reduced the overall level of his aggressiveness by the end of the year.

Jamie's social development was maintained at about age-level, and he tended to be a good model for cooperative play behavior (when he wasn't unduly aggressive). By the end of the year, Jamie was more able to share and wait turns, follow rules in compliance with adult demands and improved his ability to express his feelings verbally as a means of controlling his physical aggressiveness.

Communication

Jamie began the year about 6 months below age level and exited the

program at age-level. By the end of the year, Jamie could use elaborated and extended sentences.

Cognitive

Jamie's entry skills primarily reflected lack of exposure to pre-academic concepts rather than any serious ability deficiencies. As with his communication abilities, he entered about 6 months below age level and finished the year at age-level. Improvements in his behavior also had a side effect of improving his academic performance.

Skill acquisitions this year involved learning many new discriminations (textures, length, qualities, volume, colors, shapes, letters, more vs. less, etc.), category groupings (functions, shapes, size), serial ordering (size and length) and matching (numbers and letters). Jamie also learned how to draw several basic shapes, could count to five and demonstrated comprehension of number concepts up to three.

Self-Help

Jamie entered with age appropriate self-help skills and extended these skills to include use of a knife for cutting and spreading, setting a table for meals, and he was able to master all dressing skills except for shoe tying.

Motor

Jamie's motor skills were age appropriate at entry, and he learned a few more gross-motor skills due to his exposure to playground equipment; e.g., riding a bike and steering a wagon.

Conclusions

Jamie's entering needs were primarily in the area of cognitive development and control of aggressive social behavior. The latter improved somewhat and facilitated large gains in the former through consistent, systematic and structured instruction.

Bobby

Background

Bobby is a mildly mentally handicapped five year-old boy who is labeled communication handicapped. He was referred to the Preschool from Head Start because he needed a more consistent and structured program. At entry, Bobby was delayed about eight months in his development and exhibited a rather significant expressive language delay and major articulation problems. Bobby has been in the Preschool for one year.

Program Processes

Bobby received S/L & APE services in addition to his IEP schedule of activities.

Program Outcomes

Social

Bobby finished the year functioning at about a 4½ year-old level of development. He had improved in his ability to share toys with peers, was able to follow rules of a game with peers and was able to state his feelings. Bobby's non-compliant behavior improved over the year. His play behavior tended to be mostly parallel and usually age-appropriate.

Communication

Bobby began the year with problems in expressive language and articulation. Over the year, he made much progress in sentence expansion and vocabulary acquisition, but his articulation still needed improvement. Bobby finished the year at about a 4½ year-old level of development.

Cognition

Bobby learned quite a few pre-academic skills and finished the year functioning in the four year-old range of development. He learned new discrimination (texture, length, quality, volume, colors, shapes, same/different, more/less, etc.), could match numbers and letters, could count to six, could recognize his name in print, and he could draw a figure with body parts.

Self-Help

Bobby learned independent dressing skills this year (buckling, buttoning, snapping, zipping, etc.), matured in his feeding skills (using a knife to cut, cleaning-up spills and setting places at the table) and added a few personal hygiene skills like hair brushing and tooth brushing. He finished the year at about a 4½ year-old level of development.

Motor

Bobby's motor skills were about age appropriate at program entry. His academic work facilitated improvements in fine-motor skills like coloring and scissor cutting. Exposure to an organized PE program enabled him to pick up some new gross-motor skills like hopping, skipping, catching, throwing and kicking a ball, and he learned how to walk a balance beam.

Conclusions

Bobby appears to have gained about three months in his developmental age but is still about half a year behind his non-delayed peers. He has been re-enrolled in the Preschool for another year.

John

Background

John is a mildly mentally handicapped five year-old boy who is labeled communication handicapped. John also exhibits coordination problems and has a visual-tracking impairment due to neurological problems. John has been in the Preschool for two years.

Program Processes

John received S/L, OT, PT and APE services in the Preschool in addition to his regular IEP. John was also part-day mainstreamed this year in nursery school.

Program Outcomes

Social

John began the year with a preference for isolate play; as time passed and with influences from his mainstreaming experience, John exhibited more parallel play in the nursery school. Evidence of co-operative play in the Preschool was rare, but this was observed more often in the mainstreamed setting where John had access to higher functioning children whom he appeared to trust more, and who functioned more effectively as role models (the male normal model in the Preschool would not interact with John). John exited the program close to age-level.

Communication

John made a few gains here by improving his grammer and using more spontaneous language in relating his experiences and in asking questions. He exited the program functioning within a five year-old range of development.

Cognition/Fine Motor

John's cognitive development was impeded by his neurological problems which affected fine-motor control, visual tracking, language expression and his attention span. Nevertheless, John evidenced quite a few gains here in discriminations (more vs. less, some vs. different, heavy vs. light, letters and shapes, etc.), matching skills (letters and numbers), drawing skills (figures and shapes), and John learned to count to 20. He exited the program functioning within a four year-old range of development.

Self-Help

John entered the program this year with fairly adequate skills in this area. His major accomplishments were in dressing independence where he finally mastered buttoning and buckling skills (except for shoes). He exited functioning within the four year-old range of development.

Gross-Motor

John's neurological problems also impeded progress in this area, but John did learn to pedal a trike and stand on one foot. He exited the program functioning within the four year-old range of development.

Conclusions

John's mainstreaming experience contributed significantly to his social development; he exhibited more mature social behavior in his mainstreamed setting than he did in his special education setting. In other areas except communication, John's delays were relatively minor, and his gains were correspondingly minor for the Preschool's curriculum. An exception was in his cognitive/fine-motor skills which developed quite a lot due to the structured intervention approach used in the Preschool.

Heather

Background

Heather is a mildly handicapped five year-old girl with delays in most areas; she is labeled communication handicapped. Heather has spent one year in the preschool.

Program Processes

Heather's IEP emphasized intervention in communication, socialization and cognition. She received APE, OT, S/L services.

Program Outcomes

Social

Heather began the year with a preference for isolate play. Her peer interactions were often negative throughout the year (hitting, taking toys, etc.) which inhibited more positive peer interactions beyond parallel play. Her inability to communicate verbally (except on a very primitive level) often resulted in using negative physical acts to express her needs which most children would not tolerate well, including the female normal peer model. Although Heather learned to imitate more play with peers, this was usually of a negative variety, and Heather never progressed beyond a parallel play style. Only in structured, teacher directed activities would Heather take turns and participate cooperatively with peers. Socially, she completed the year functioning within a three year-old developmental level.

Communication

At the beginning of the year, Heather tended to use gestures rather than verbal means to express herself. With teacher cueing (along with S/L therapy and the classroom language group), expressive

language began to emerge. By the end of the year, Heather was using a great deal of spontaneous, expressive language; she was both using elaborated sentences and could understand elaborated sentences. She finished the year functioning in the four year-old range of language development.

Cognition/Fine Motor

Heather's visual problems impaired her perceptual and fine-motor abilities which were eventually improved by corrective glasses. She learned many discriminations (texture, length, quality, volume), matching skills (letters and numbers), quantitative concepts (ordering by size and length, counting to 5, more or less), could identify letters, could draw both figures and shapes, and she learned how to use scissors. She finished the year functioning within a three year-old range of development.

Self-Help

Heather began the year with good self-help skills. She could dress and feed herself and was toileting independently. She added a few more skills to her repertoire like using a knife to cut with and mastered more complex dressing skills involving zippers, buttons and buckles. She exited the program at age-level for self-help skills.

Gross-Motor

Corrective glasses improved Heather's gross-motor abilities. She learned to hop, skip, catch and throw a ball and learned how to use a variety of gross-motor play equipment such as the slide and balance beam. She exited the program functioning at a four year-old level.

Conclusions

Heather made much progress in communication as a result of her

structured program; this did not, however, tend to facilitate her social development. Gains in cognition and fine motor were largely facilitated by corrective glasses, along with her IEP emphasis.

Emily

Background

Emily is a six-year old, severely handicapped girl. She has no verbal behavior and has been labeled communication handicapped. Emily had cardiac surgery at twenty-two months and subsequently suffered a stroke which has severely arrested her development. Emily is neurologically impaired and takes medication to control seizures. In all developmental areas, Emily functions at an infantile level. She has been in the Preschool for one year.

Program Processes

A Goal Attainment Scaling (GAS) program was implemented with Emily beginning in October with intervention targeted primarily for feeding and requisite fine-motor skills. A cognitive goal area was also implemented which emphasized both fine and gross-motor skills. Consequently, Emily's IEP was implemented primarily in the motor and self-help domains through a highly structured and focused intervention approach. She also received OT, PT and S/L.

Program Outcomes

Social

Staff were concerned all year about managing Emily's negative and inappropriate social behaviors (hair pulling, mouthing and throwing toys, etc.). Verbal commands and negative reinforcement never proved effective as consistent management techniques. These negative behaviors turned out to be attention seeking devices on the one hand and appropriate behaviors for an infant when Emily's development was considered. Consequently, providing adequate attention and tolerance

for infant-level behaviors proved most acceptable in dealing with these behaviors. Her solitary, object play was also reflective of an infant's repertoire for sensory stimulation, oral gratification/manipulation, etc. In short, Emily's "negative" social behaviors were reduced by providing more attention and by developing a better understanding of what is developmentally appropriate, rather than age-appropriate. With verbal cueing, Emily was also able to maintain and increase her interactions with adults.

Communication

Emily remained nonverbal this year but was beginning to imitate a few sounds. With a physical shaping techniques, she learned how to wave "hi" and "bye" and to use gestures for expressing simple needs. She maintained her prior ability to understand a few commands. Expressively, Emily primarily babbled and communicated physically through smiling, laughing, crying and hair pulling to get attention (see social).

Cognition/Fine Motor

Emily's progress was primarily in fine-motor manipulation as precursors to perceptual and cognitive developments (play pat-a-cake, roll a ball, drop and release objects, etc.).

Self-Help

Feeding skills were the primary focus of interaction in this area. Emily learned how to feed herself independently with a spoon, but this behavior regressed toward the end of the year; she learned the fine-motor skills, but "negative" social behaviors tended to destabilize this achievement in self-feeding. Negative or disruptive behaviors included throwing food, grabbing at others, banging eating utensils, etc Emily made no progress elsewhere and remained dependent on adults for dressing and toileting.

Gross-Motor

Emily learned how to stand with adult support, walk with the assistance of a walker and could sit unsupported.

Conclusions

Consistent with the emphasis and focus of E[illegible] GAS program, her major achievements were in self-help (feeding) and fine-motor skills involving her development of a pincer grasp for manipulation of objects. Her fine-motor developments are also precursors for the perceptual and cognitive development. With emerging recognition of Emily's needs for individualized attention (often frustrated by lack of staff and possible home factors), her "negative" social behaviors were also reduced or at least better understood in relationship to her developmental level.

Latoya

Background

Latoya is a five-year old multiply handicapped girl with a primary impairment in vision. She was born with glaucoma and is sighted in only one eye. Her listening ability is characterized by selective attention on her part. She also exhibits autistic-like (self-stimulating and ritualistic behaviors). Latoya has been enrolled in the Preschool for the last two years.

Program Processes

Staff spent a good part of the fall in assessing Latoya's skill levels and in designing an intervention program using Goal Attainment Scaling (GAS). The GAS program was implemented beginning in September with goals in the areas of cognition (shape discrimination), gross-motor (walking stairs with alternating feet) and self-help (dressing). A signing program was begun in September and implemented largely for feeding situations over the year. The parents were eventually involved in a home program for Latoya which seemed to help improve her general behavior/compliance, signing and dressing skills. Latoya received OT, S/C, APE services and had access to a deaf-blind resource teacher.

Program Outcomes

Social

Latoya continued to function at a one-year old level of development. She was able to demonstrate physical affection toward others by hugging and kissing and become somewhat more responsive over the year by smiling and vocalizing more to others, responding more to

commands and taking part in manipulative games with adults. She continued to prefer isolate play over the year although much of this was inappropriate as in "mouthing" play objects (self-stimulation). Peer interactions tended to be negative.

Communication

Latoya continued to function at a one-year old level of development and remained largely a nonverbal child. She was able to learn how to sign for a few words, but this was inconsistent. Her vocalizing continued to be self-oriented, and communication with others was usually to protest something by crying or screaming. Receptively, Latoya increased her responsiveness to commands and knowledge of objects/body parts.

Cognition

Latoya continued to function within the two-year old developmental level in which progress was noted in perceptual abilities involving discrimination, matching and grouping of objects. Entry behaviors were largely related to fine-motor skills.

Self-Help

Latoya continued to function within the two-year old developmental level. Progress was noted primarily in dressing skills and being able to use the potty independently. She appeared to lack motivation in becoming more independent in dressing due to over-reliance on her parents in spite of exhibiting pre-requisite fine-motor skills. No further progress was noted in other self-help areas.

Motor

Latoya continued to function within a 2-3-year old range of development in fine-motor; she extended her range of manipulative skills in bead stringing, block stacking and toy usage. In

gross-motor, she learned how to walk downstairs but never mastered alternation of feet. She increased her use of gross-motor play equipment and skills; e.g., somersaults, use of rocking horse, ball rolling, etc. Non-compliant behavior inhibited learning in the motor area.

Conclusions

Latoya appeared to make the most progress in those areas targeted within her GAS program--cognition, self-help and gross-motor. The high degree of structure and focus from GAS intervention appeared effective for helping Latoya make some small, yet significant gains in these areas.

Chris

Background

Chris is a non-delayed four-year old boy who was enrolled in the Preschool as a "Normal Peer Model." He spent one year in the Preschool.

Program Progresses

Chris had an IEP developed for him which included objectives for handwriting and reading in addition to the usual Preschool curriculum areas.

Program Outcomes

Social

Chris had a strong attachment to the other normal peer model (Adrianne), which had been developed prior to enrollment in the Preschool. As a consequence of Chris' attachment to Adrianne, he played mostly with her and was dominated by her. Chris tended to reject play initiatives made to him by the mildly handicapped males although he would interact more frequently with them toward the end of the school year. However, Chris continued to prefer Adrianne as a playmate throughout the year, and when she was not available, he would generally prefer to play by himself rather than with his handicapped peers.

Chris learned how to take turns and would follow rules in a group game with peers, when structured by the teacher or with Adrianne.

Communication

Like Adrianne, Chris was a good language model and for the same reasons. By the end of the year, Chris was able to both understand and use elaborated sentences, questions and direction.

Cognition

Chris learned to identify/draw shapes, order by length, discriminate by touch, comprehend more vs. less, recognize his name in print, count to six, etc. Because of the independent structure of the work groups and absence of positive social relationships with his handicapped peers, Chris did not function as a role model in structured work activities. Chris learned to rhyme spontaneously.

Self-Help

Chris learned how to dress himself independently and to use a knife to eat with. His self-help skills, like other area, were well developed for his age.

Motor

In the fine-motor area, Chris learned how to copy a colored pattern and cut with scissors. Gross-motor skill acquisition included hopping, skipping, catching/throwing a ball.

Conclusions

Conclusions for Chris are the same as for Adrianne and in perspective to his relationship with her.

Chris

Background

Chris is a moderately retarded six-year old boy with a severe expressive language delay. He was born with a cleft lip and palate, along with multiple congenital anomalies. Chris also has a heart murmur and is microcephalic. He has been at the Preschool for three years.

Program Processes

Chris received S/L, OT and APE services in addition to his IEP schedule of activities.

Program Outcomes

Social

At the beginning of the year, Chris' play style was isolate for the most part. As the year progressed, he would observe the higher functioning children and began to imitate their play, joining in parallel activities. However, modeled behavior was not always appropriately generalized and had to be redirected by adults. Goal directed and cooperative play began to emerge toward the end of the year when Chris would join in gross-motor games, e.g., chase, hide-and-seek, with the higher functioning children. However, Chris would tend to revert to isolate play when verbal behavior was needed for cooperative play. Chris' isolate play did become more mature, elaborate and creative, possibly, as a result of modeling his non-delayed peers.

Communication

This year, Chris began to use two-word sentences and phrases which increasingly became spontaneous. Such short sentences were directed

to adults for the most part. Social-verbal communication with peers was emerging toward the end of the year. Chris' articulation remained poor, however, but his facial expression and chewing facilitated interpretation.

Cognition/Fine-Motor

This year, Chris learned to discriminate shapes, colors, textures and sounds. He also learned to name colors, group by function and count to three. With the development of pencil-holding skills, Chris learned to print his name, draw elaborated figures, with shape drawing emerging. He could also assemble a six-piece puzzle. Scissor cutting was also emerging.

Self-Help

This year, Chris' feeding skills improved by his learning to spread with a knife and to pour liquids from a pitcher. His dressing improved through mastery of buckling skills. Grooming skills were also improved by Chris learning to brush his teeth and to wash his face and hands.

Gross-Motor

This year, Chris learned to catch a ball, do somersaults, march, pedal a trike and use the swing set. Skipping was an emergent skill.

Conclusions

Chris' social development as well as language development appears to have been aided by exposure to non-delayed peers in the classroom. His cognitive and fine-motor developments appear to be the result of an individualized and highly structured program at the Preschool.

Ronnie

Background

Ronnie is a moderately retarded five-year old boy with a major handicap in communication. He was referrred to the Preschool from Head Start in order to provide him with a more consistent and structured program. He has been in the Preschool for two years.

Program Processes

Ronnie received S/L and APE services in addition to his IEP schedule of activities.

Program Outcomes

Social

Ronnie tended to do a lot of solitary pretend play which was not always appropriate. He would often talk to himself and flap his arms in excitement; sometimes he would get very scared and begin screaming that imaginary animals were attacking him. There was some suggestion that Ronnie hallucinates. When not involved in solitary fantasy play, Ronnie would watch the more advanced children and would, sometimes, play in parallel with them. By watching the more advanced children, Ronnie learned to imitate their play behavior. Goal directed play was emerging toward the end of the year, and Ronnie would sometimes join the more advanced boys in a goal-directed play episode involving role taking.

Ronnie also learned how to verbalize his feelings more. He was also developing social skills like greeting others.

Communication

Ronnie's use of language for social communication improved greatly

this year. Rather than scream and whine, he gradually learned to communicate using words. He also learned how to answer simple questions using short sentences of 3-4 words and phrases. Ronnie also began to increasingly verbalize about his own work at the Preschool and to share his experiences verbally.

Cognition

Ronnie learned many new discriminations this year (heavy vs. light; same vs. different; size; texture; colors and shapes). He also learned how to group objects by color, shape and size. Ronnie increased his matching ability and learned how to count up to three.

Self-Help

Ronnie extended his dressing skills to putting on socks and removing a t-shirt, along with snapping and zipping skills. Ronnie also learned how to clean up spills and to wash his hands with soap.

Motor

In fine motor, Ronnie learned how to trace and write the letter "R". Copying and scissor cutting skills were emerging. In gross motor, Ronnie learned how to run, pedal a trike and use a swing set.

Conclusions

Ronnie's big gains this year appear to be in communication and cognitive development due to the highly structured and individualized program he received at the Preschool.

Andy

Background

Andy is a seven-year old quadriplegic who suffers from cerebral palsy. Andy is both physically as well as communication handicapped. In addition to his Preschool program, Andy has had a home tutor and a private speech therapist. Andy has been at the Preschool for two years.

Program Processes

Andy received OT, PT, S/L and APE services in addition to his IEP schedule of activities.

Program Outcomes

Social

Andy's play behavior was initially restricted to lying on the floor pushing a toy car or watching others. He became more interactive over the year and would seek physical contact with his peers. Imitating peers in play was beginning to emerge by the end of the year.

Communication

At the beginning of the year, Andy was nonverbal but could understand simple directions, questions and sentences; his expressive language was limited to gestures and vocalizations. By the end of the year, Andy could use a few single words like "no" and "juice" and could sign as well for "drink," "potty," etc. Andy also learned to respond to his own name.

Cognition/Fine-Motor

Development in this area was primarily of a fine-motor nature such as learning to scribble with drawing skills emergent. Andy was also learning to point to different objects on request. Matching skills were emerging.

Self-Help

Andy learned how to use a spoon this year; holding a fork and using a napkin were beginning to emerge. Andy also learned how to hold out his arms and legs while being dressed; zipping skills were emerging.

Gross-Motor

Andy learned how to move from a sitting position to a lying position. He also learned how to use a rocking horse.

Conclusions

Communication skills appeared to evidence the most progress as a result of Andy's structured program. Interest in other people and attempting to imitate his peers probably motivated Andy to become more social in his communication.

Charlie

Background

Charlie is a multiply and severely handicapped five-year old boy. He is nonverbal and functions within a one-year old level of development. In infancy, Charlie was diagnosed as "failing to thrive," with cerebral palsy, microencephaly and brain damage. He has seizures for which he takes medication. Charlie has been in the Preschool for one year.

Program Processes

Charlie received S/L, OT, PT and APE services in addition to his IEP schedule of activities. His IEP work emphasized attending skills and motor development. Charlie was absent much of the time, and his school attendance rate was only about 30%.

Program Outcomes

Social

Charlie tended to explore his environment orally for the most part by mouthing objects; he was not too interested in people. He did learn to allow an adult to interact with him by holding and examining an offered object. By the end of the year, his "mouthing" behavior had decreased significantly, and Charlie was tactally and visually exploring his environment more.

Communication

Charlie made little progress in vocalization other than repeating syllables, e.g., ma-ma. However, Charlie did learn to maintain eye contact and to respond to his name when cued, e.g., "Charlie, come."

Cognition/Fine-Motor

This year, Charlie learned how to perform some specific actions with various play objects like turning a dial on a telephone. He also learned how to drop objects into a container with physical and verbal cues and to drop/pick up toys. Charlie also developed a pincer grasp for object manipulation.

Self-Help

The only notable progress made by Charlie this year was in holding and drinking from a cup.

Gross-Motor

Charlie began the year getting around by crawling for the most part. He eventually learned how to knee walk and, then, to walk with assistance.

Conclusions

Charlie's progress this year was minimal. What progress he did make was due to a highly structured and individualized intervention program. Some breakthroughs in communication were probably significant for Charlie to make any progress, i.e., attending to verbal and physical cues by learning to maintain eye contact with an adult.

Sophie

Background

Sophie is a multiply handicapped five-year old girl with moderate mental retardation. She was born with multiple birth defects and takes medication to control seizures. She has a heart murmur and has been diagnosed as brain damaged. She has been in the Preschool for two years.

Program Processes

Sophie received OT, PT, S/L and APE services in addition to her IEP activities. A goal attainment scaling program was also implemented in the areas of cognition (discriminating large and small), self-help (putting on a pull-over) and motor (stringing beads).

Program Outcomes

Social

At the beginning of the year, Sophie's play style was isolate. Peer interactions were primarily oriented to the lower functioning children whom she would "mother" and manipulate. Interactions with higher functioning children tended to be of an antagonistic nature.

By the end of the year, Sophie would interact more with the higher functioning children,and more parallel play was observed. She was beginning to initiate more interactions with the higher functioning children, watch them more and join in with similar play activities.

Communication

Sophie tended to use gestures and noises at the beginning of the year to communicate. A few words were emerging but articulation was poor. She could imitate sounds but had difficulty connecting them together to form words.

By the end of the year, Sophie was using more words to express herself; she was forming simple questions, and articulation had improved. Such improvements were related to a communication program developed for her using sign-verbal cue pairing as well as modeling effects from the non-delayed peers in her classroom. Sophie could also understand simple questions, directions and sentences.

Cognition/Fine-Motor

Sophie needed much verbal and physical cueing to follow through and complete tasks. Individualized and teacher supervised tasks were necessary with Sophie as reflected in her goal-attainment scaling program where she learned how to string beads and learned the concept of "big." Sophie learned how to repeat numbers, discriminate objects by sounds and was beginning to be able to match and count rote. She also learned how to scribble, assemble blocks, snip with scissors, manipulate snap and nesting toys and point to objects when cued verbally.

Self-Help

Sophie's development in this area involved feeding and dressing skills. She learned how to use a fork, napkin, pour liquids and clear a table. Dressing skills were partly facilitated by her goal attainment scaling program where she learned how to put on a pull over and both put on and take off a t-shirt. Snapping and zipping skills were emerging.

Gross-Motor

This year, Sophie learned some new gross-motor play skills like running, kicking a ball, doing somersaults, using a slide and pedaling a trike.

Conclusions

Sophie's big gains this year appeared in social and communication skills. She began to interact verbally more than in the past and to join peers in play. Her GAS program helped Sophie in the fine-motor, cognition and self-help areas.

Heather

Background

Heather is a multiply and severely handicapped four-year old girl. She was born with congenital heart disease, microcephaly and multiple congenital anomalies. As an infant, Heather was diagnosed as "failing to thrive" and having possible brain damage. She is small for her age, cannot walk, non-toilet trained and has minimal self-help skills. Heather suffers from juvenile rheumatoid arthritis which affects both her motor abilities and her moods. She has been in the Preschool for two years.

Program Processes

Heather received OT, PT and APE services in addition to her IEP activities. A goal-attainment scaling program was also implemented with Heather which focused on cognitive/fine-motor skills (purposively placing objects in response to verbal cues), gross motor (walk with minimal aid) and self-help (pulling arms out of a coat).

Program Outcomes

Social

Heather would stop crying with verbal attention, and she learned to show affection to a familiar person. She was also beginning to respond to her own name when called and could play by herself unattended for about five minutes. Her play behavior consisted primarily of exploring toys and objects by manipulating them with her hands, looking at them and mouthing them.

Communication

Heather made very little progress in communication skills. She

learned to respond to simple verbal commands like "No." She could respond nonverbally to a simple question or direction, and she could combine syllables in vocal play.

Cognition/Fine Motor

Heather's accomplishment in this area was the development of a pincer grasp to manipulate objects and to release objects (inconsistently) on a verbal cue.

Self-Help

Progress in this area involved dressing skills. Heather learned how to pull off her socks and shoes and also to put her arms and legs into clothing and to pull them out.

Gross Motor

Progress in this area was in pre-walking skills. Heather learned how to "cruise" and stand with minimal support.

Conclusions

Heather's progress appeared to be facilitated in large part by intervention with goal-attainment scaling (gross motor, cognition and self-help). Very specific skills were targeted for instruction. Progress in social behavior and communication was minimal and probably in large part related to maturation.

Kathy

Background

Kathy is a four-year old girl of normal intelligence. She was referred to the Preschool because of a language delay and articulation problems. She was enrolled in the Preschool for the last four months of the year which makes an evaluation of child progress somewhat difficult to assess.

Program Processes

Kathy received APE and S/L services in addition to her IEP schedule of activities.

Program Outcomes

Social

Kathe's new skill acquisitions were all emergent and not yet stabilized. These included turn taking, cooperating with an adult and following rules of a group game led by an adult. Kathy tended to prefer isolate play and used aggressiveness to gain attention.

Communication

There were no solid gains in this area, but Kathy was beginning to use a more elaborated sentence structure toward the end of the year. However, Kathy's articulation problems continued.

Cognition/Fine Motor

Kathy learned how to match objects to pictures, do simple two-piece puzzles, name objects and manipulate nesting toys. She also learned to snip with scissors and to trace.

Self-Help

Kathy learned how to dress independently at the Preschool, to

use a fork and to pour liquids out of a small pitcher.

Gross Motor

Kathy learned how to ride a trike and do somersaults.

Conclusions

Kathy's gains were minimal, but she had been in the Preschool for only 4 months. No real conclusions can be offered. She did appear to make some relatively large strides in the area of cognitive development.

Geoff

Background

Geoff is a non-delayed five-year old boy who was enrolled in the Preschool as a "normal peer model." His skill levels are generally above average in all areas. Geoff was enrolled in the Preschool for one year.

Program Processes

Geoff had an individualized instructional program, but no formal IEP was developed for him.

Program Outcomes

Social

At the beginning of the year and throughout most of the school year, Geoff preferred to play with Benny in active, physical activities which for Geoff were designed as cooperative-pretend play; however, Benny was not very good at playing a role and would often try to change the activity from "Super Heroes" to a basic chase scenario. Benny often would not play according to Geoff's rules which resulted in disagreements and aggressive episodes. For a while, Geoff would follow Benny's lead and imitate Benny's inappropriate behavior.

Benny's inappropriate behavior often got Geoff in trouble or would result in fights and disagreements. Geoff would then terminate his play with Benny and either (1) involve Ronnie and Chris in cooperative-pretend play in which the latter were more agreeable about role-taking, or (2) Geoff would play by himself in pretend activities involving boy cars and people. Geoff was rarely successful in reasoning with Benny about what is acceptable and appropriate behavior.

Toward the end of the year, Geoff's involvement with Benny became more restricted to the gym or playground where rowdy, gross-motor play was more acceptable. His classroom play became more isolate-pretend play. Play with Mahrah was minimal due to Geoff's preference for same-sexed playmates.

Geoff would also interact with the severely handicapped children. Over time, Geoff restricted his interactions to Andy and avoided Heather or Charlie because of the latter's tendencies toward negative behavior.

Communication

Geoff was a good language model for both structured groups and spontaneous interactions. Geoff's language was very well developed. His skill acquisitions included some of the following: telling a story from memory, rhyming, defining words for others or asking the meaning of new words, opposite analogies, concept exclusion, prediction, etc. Geoff tended to resist participation in circle and language group for a period of time.

Cognition/Fine Motor

Geoff was a conscientious worker and modeled good work habits in spite of repeated disruptions by Benny. There was some active modeling on Geoff's part in his work group, but because of the independent nature of the work group, his modeling was mostly of a passive nature. Some of the skills Geoff learned were as follows: discriminating penny, nickle, dime; counting to 20; knowing left from right; reciting the alphabet and letter recognition/printing; sight reading; and adding/subtracting up to three. Geoff also learned how to draw complex shapes and elaborated pictures.

Self-Help

Geoff was very advanced in this area. Some new acquisitions learned at the Preschool included using a knife to spread, brushing his hair and tying his shoes.

Motor

Geoff's motor skills were well developed. Exposure to Preschool activities helped Geoff to learn some new gross-motor skills like hopping, skipping, walking a balance beam, using a swing set and dribbling a basketball.

Conclusions

There was evidence of Geoff "burning-out" as a role model by the end of the year. He became more resistant about participating in circle and language group, his play behavior became more isolate and his work group was not optimally structured for interaction but which was more conducive to independent, non-interactive work (disruptions by Benny and Benny's competitiveness precluded Geoff's ability to model at work group). Geoff's skills were well developed, and exposure to Preschool facilitated some modest gains in curricular areas preparing him for kindergarten.

Benny

Background

Benny is a six-year old boy of low-normal intelligence, but with a communication handicap. He is a hyper-active youngster and was initially referred to the Preschool from the local mental health center. Benny's communication handicap reflects articulation problems which makes his speech hard to understand. Benny's hyperactivity and aggressiveness have also contributed to serious behavior problems. Benny has been in the Preschool for two years and exited the program ready for a regular first grade placement.

Program Processes

Benny received S/L and APE services in addition to his IEP schedule of activities at the Preschool. He was also part-day mainstreamed in kindergarten this year.

Program Outcomes

Social

Throughout most of the year, Benny was rather aggressive with his peers. Much of this play behavior was inappropriate (e.g., hitting, pushing, running in the classroom, etc.) and which Benny modeled for the other children. Benny was the dominant figure within his Preschool peer culture, and even Geoff, the "normal peer model," would imitate much of Benny's inappropriate and rough play behavior.

When Geoff was in attendance, Benny would play with him in co-operative and parallel play activities. However, cooperative play was minimal due to Benny's competitiveness and inability to play an appropriate role within the limits of acceptable behavior. When

Geoff was not in attendance, Benny's play style tended to be isolate. Very often, Benny's isolate play involved inappropriate elements like running around in the classroom or aggressive fantasy play. Appropriate cooperative play with peers occurred usually under conditions of teacher structuring and facilitation.

By the end of the year, Geoff was observed to play much less with Benny. Benny appeared to try to encourage Geoff's friendship, and his aggressiveness and temper were more in check by the end of the year, which did help. Benny's aggressiveness and temper control were improved by a combination of teacher structure/limit-setting and by Geoff's modeling in which he would not play with Benny after temper tantrums and aggressive episodes. Peer influences from kindergarten were also evident in that the greater number of "normal models" tended to regulate Benny's behavior toward more socially acceptable acts.

In sum, by the end of the year Benny had become more goal directed in being more able to play cooperatively with peers,and appropriate social behavior was emerging across diverse settings. In both kindergarten and the Preschool, Benny had improved considerably in following rules of a game with peers, sharing as well as explaining the rules of games to peers. His temper and aggressiveness were also much more under control.

Communication

Benny's articulation problems were more evident to his Preschool teacher with normal peers available for setting natural standards of speech. Although Benny learned to use more complex and grammatically correct sentences this year, articulation remained a problem for him. This is the only major area judged by Benny's

teachers as being below age-level at program exit.

Cognitive/Fine Motor

Geoff and Benny would occasionally seek each other's assistance during work group in which modeling operated bi-directionally. However, Benny tended to disrupt Geoff quite a lot during work time, and which was sometimes reciprocated by Geoff. The independent nature of the work group often worked against Geoff in being effective as a role model for Benny concerning good work habits.

Benny was highly distractable, and his poor auditory memory impeded his ability to follow through on directions during work time. This may have worked against Benny's academic progress.

Benny's academic progress was a joint result of his dual enrollment in the Preschool and being mainstreamed in kindergarten. Here is a laundry list of some of Benny's skill acquisitions this past year· ordering by length; discriminating by touch; copying complex shapes; naming eight colors; counting to 39; adding and subtracting up to 3; naming missing parts of a picture; printing his full name; being able to copy a majority of the letters in the alphabet and drawing simple pictures.

Benny's behavioral immaturity and competitiveness worked against his fine-motor control for academic tasks. Because Benny felt compelled to finish first and be the winner, much of his paper work products ended up rather sloppy. His fine-motor control for academic tasks was also judged to be below age-level by his teachers at program exit.

Self-Help

Benny picked up a few new skills this year. He became independent in dressing skills having mastered all fasteners, and he could also tie his shoe laces. Benny also learned how to be independent in the

lunch room cafeteria, could set a table and cut with a knife. Benny also learned how to brush his hair this year.

Gross Motor

Benny's skills were well developed in this area. He learned some new skills this year such as hopping, riding a bike, steering a wagon and appropriate use of the swing set.

Conclusions

Benny's big gains this year were in social and cognitive/academic skill development. Both of these areas were positively influenced by Benny's dual enrollment and influences of normal peer models.

APPENDIX G

Exploring the Merit of Alternative Mainstreaming Strategies for Preschool Children Using a Naturalistic Evaluation Approach

By

Nicholas B. Fitzgerald

Indiana University Developmental Training Center
Model Program Development and Dissemination Unit
Bloomington, Indiana
September, 1981

INTRODUCTION

This paper reports an evaluation of two alternative approaches to mainstreaming preschool handicapped children. The study reported here focused on contrasting the conventional approach to mainstreaming (placing the handicapped child into a regular education classroom setting) with the normal peer model approach, or reverse mainstreaming (enrolling nondelayed children in the handicapped child's special classroom).

The primary objective of the study was to determine the major differences and commonalities between these two alternative approaches to mainstreaming in order to judge the relative merits of each approach. Although descriptive for the most part, the study sought logical inferences from the comparative data on play style and academic settings in order to judge the relative merits of each mainstreaming approach. More specifically, data were generated to assess the efforts of alternative mainstreaming strategies on: (a) promoting more mature forms of social play and (b) promoting modeling effects as a result of exposure to non-delayed peers in two levels of instructional settings.

SETTING

The evaluation study was conducted during the 1980-81 school year and was sponsored by the Indiana University Developmental Training Center (IU/DTC). The IU/DTC operated a multicategorical special preschool within a public elementary school setting under a Federal grant from the Office of Special Education. The evaluation

research took place within the preschool setting.

The preschool utilized both the conventional mainstreaming approach and the normal peer model approach. Thus, handicapped children had opportunities for integration during part of their day into the regular education division's kindergarten and nursery school. Those same children also had access to non-delayed peers in their special preschool classroom setting. The evaluation study, therefore, focused on the experiences of those preschool handicapped children who were exposed to both alternative approaches to integrating handicapped and non-delayed children.

STUDY METHODOLOGY

The evaluation methodology used was a naturalistic, case study approach. Case studies were developed from a data base composed of narrative observations, program records and documents, and interviews with teachers, parents, and children. The data analysis was based on a comparison of the several case studies.

Bounding the Inquiry

A purposive sampling strategy was used rather than a random sampling technique. In other words, the study participants were those seven preschool children involved in both forms of mainstreaming utilized by the preschool. Three of these children were mildly mentally handicapped children who participated in both the conventional mainstreaming approach as well as having the benefit of exposure to normal peers in their special preschool setting (the reverse mainstreaming alternative). The other four children were the "normal peer Models" who functioned as the "treatment" for implementing the

reverse mainstreaming approach in the special education preschool.

The seven children were observed in three activity settings across both mainstream contexts. The three activity settings were classroom free play, academic work group, and language circle. The three handicapped children were observed in these activities both in their special preschool classroom and in their regular education setting where they were part-day mainstreamed. The four non-delayed children were observed only in the special preschool where they served as "normal peer models."

All seven children were observed during the winter of 1980-81 and again in the late spring of 1981. On both occasions, observations were conducted in the three activity settings and were applicable across both mainstreamed environments.

The Data Base

The data were generated from three sources -- observations, documents/records, and interviews. Narrative observations formed the primary data base in which the documentory and interview data were used as secondary sources to add further perspective and corroboration in a process of data triangulation.

Narrative Observations

The project evaluator observed the children by using a hand-held microphone attached to an audio tape recorder. This observational technique is based on the work of Roger Barker and his associates in Ecological Psychology at the University of Kansas. The observation tapes were transcribed, reviewed, edited, and typed into "specimen records." Each specimen record is a narrative account of a child's ongoing, natural behavior within one of the activity settings sampled.

Documents/Records

The Head teachers in the preschool maintained a daily log on each child which was summarized for analysis purposes on a weekly basis. The focus of each week's log was determined by the classroom teacher. These anecdotal records are essentially participant observer accounts by each teacher for each of her preschool children. Access to student records was also made available.

Interviews

The teachers were interviewd several times during the course of the study. These interviews were open-ended, conversational, and organized by an interview guide. The normal peer models and their parents were interviewd once at the end of the school year. The primary purpose of the interviews was to elicit the respondents' perspective on their experience with the reverse mainstreaming alternative.

Data Analysis Procedures

The speciman records (narrative observation transcripts) were first "unitized" into behavior episodes. That is, the structure of each child's observed behavior was determined for each observation transcript by dividing the childs stream of behavior into naturally occurring, goal-oriented behavioral units, or episodes. The behavior episode was the primary unit of analysis for the observational data.

A reliability study was conducted for inter-analyst agreement in discriminating the behavior episods. A training criterion in excess of 85% was reached prior to conducting the actual reliability study, which in turn was conducted prior to the analysis of the

full data set. The reliablity method developed by Barker and Wright (1971) was utilized, in which the average inter-analyst agreement was 83%. Episode discrepancies occured primarily for minor episodes contained within the larger "parent" episodes, and all discrepancies were reconciled into the coding scheme adopted for analysis of the full data set. Inter-analyst agreement was highest for the more structured activity settings and decreased as a function of the ambiguity and complexity of the behavior to be coded. Thus, free play was the most difficult to analyze whereas the highly structured language circles were the easiest data-sets to analyze.

The behavior episodes served as the unit of analysis for category coding and for pattern analyses of the data. Category codes were developed from the social/communicative scale developed by Guralnick and Weinhouse (1980); additional codes were developed from a preliminary analysis of the data and these codes were thus "grounded" in the actual data.

Case studies were then developed for each child by synthesizing the observational data with information generated from the documentary and interview data. From the case studies, conclusions were generated in the form of "naturalistic generalizations" (see Stake, 1978) in order to portray to the reader, a situation which she/he can judge for applicability to their own setting.

FINDINGS OF THE EVALUATION STUDY

The data can best be reported by selecting two of the case studies which portray the differences experienced by handicapped children exposed to different mainstreaming environments. These different

across two special preschool classrooms as well as for divergent patterns found in mainstreamed regular education classrooms at both the nursery school and kindergarten level.

For each case study, the findings address comparisons across each mainstreamed environment for the three activity settings where applicable -- free play, academic work group, and the language circle. The case studies to be reviewed are those of Joey and Bart (these are pseudonyms for two children in the preschool), two mildly mentally handicapped preschool boys. Those data were initially disseminated as an interim report at the 1981 international conference of the Council on Exceptional Children held in New York City.

Joey's Story

Joey is a five year old mildly mentally retarded boy who was labeled communication handicapped. Other problems involved megalocephally, a visual tracking impairment, and poor motor coordination. His special preschool provided him with a structured intervention program, exposure to seven other handicapped children ranging from mildly to severely mentally handicapped, as well as exposure to two non-delayed children who were enrolled as "peer models." He was also part-day mainstreamed into a regular nursery school which primarily emphasized socialization in a child/discovery oriented atmosphere composed of 15 non-delayed four year olds. Consequently, Joey's story will focus on contrasts in play behavior.

Joey in Preschool

When Joey was initially observed in his special preschool in the winter, the majority of his free play episodes excluded peer action. He preferred to play by himself for the most part (36%) or with an adult (29%). The other third of Joey's play episodes were equally divided

between watching others play or playing in parallel with his handicapped peers. The dominant type of play episode for Joey (based on time duration and the recurrent nature of play episode type) was solitary play. When Joey played by himself, his solitary play tended to be appropriate. He would prefer to play with toy cars and trucks in a simple, exploratory manner involving object manipulation for the most part. Pretend play was noticeably absent from his play style.

Joey's preference for solitary play resulted in considerable negative affect due to other children wanting to play with him or share his play toys. Only with direct adult facilitation would Joey play in parallel with other handicapped children. Parallel play, however, tended to be brief and unless sustained by an adult, Joey would revert back to solitary play. Because other mildly handicapped children would tend to disrupt Joey's solitary play episodes, Joey would either seek out the teacher for assistance or the teacher would intervene to facilitate parallel play. Consequently, Joey's interactions tended to focus most often on adults within a context of solitary play. His communications were primarily adult-directed, either in terms of brief conpliance with adult request for sharing and parallel play, or in making informational statements directed to an adult.

In spite of the presence of two non-delayed children in Joey's special preschool classroom, there was a marked absence of interaction with them. During the "normal peers" initial adjustment ot the special preschool classroom, they tended to either play by themselves, with each other, or interact with adults. The primary interaction between Joey and the normal peers in his preschool classroom

was that of watching each other play. Similar to Joey's handicapped peers however, a few negative interactions would occur between Joey and the male normal model over toy sharing within the context of Joey's solitary play.

When Joey was observed again at the end of the school year, his predominant play style was adult-directed in which he had basicly shifted his solitary play style into the context of seeking adult support and direction. His on-looker behavior had doubled by late spring in which Joey focused primarily on his handicapped peers, not his non-delayed peers.

Within the context of Joey's on-looker behavior, he would often use informational statements to communicate with his mildly handicapped male peers to encourage interaction, but this was usually not successful. The two mildly handicapped boys which Joey focused his gaze upon most frequently were an attached duo who rarely allowed Joey to play with them.

As with the initial observations, parallel play was minimal and usually only in the context of direct adult facilitation. And as before, positive interactions with Joey's non-delayed peers were markedly absent. Joey's interaction with his "normal peers" tended to be even more negatively accentuated by the end of the school in which the latter tended to scold Joey for what they apparently perceived as immature and inappropriate behavior. A side-effect of the normal peers' negative attitude toward their handicapped peers was for Joey to join with his handicapped peers in teasing the non-delayed children.

Joey in Nursery School

Joey's story is somewhat different for his mainstreamed nursery

school experience when compared to his exposure to "reverse mainstreaming" in his special preschool. When initially observed in the winter, there was an absense of solitary play (his playstyle preference in preschool) and the presence of cooperative play. However, the dynamics of Joey's involvement in cooperative play was quite revealing. To wit, his normal peers in nursery school would tend to involve Joey in cooperative play in order to build something such as a spaceship made from "big blocks" and then they would try to exclude him from playing with them in the spaceship after Joey had helped them build it. Joey's insistence on joining his classmates in play (with the help of the teacher) would then usually result in his nursery school peers allowing Joey to play in parallel with them.

As a result of attempts to exclude Joey from cooperative play after some play object had been constructed, the predominant play episode for Joey was often limited to that of watching his normal peers play. Consequently, on-looker behavior was Joey's dominant play style during the initial observations, which he utilized in attempting to join the cooperative pretend play of his non-delayed peers by maintaining close proximity to them. However, Joey's "wall flower" behavior was generally not successful by itself in promoting cooperative play. Teacher facilitation (as in the preschool for parallel play) was usually necessary in moving Joey out of being an on-looker and into joining his classmates in cooperative play (which they in turn would modify into parallel play for Joey after the teacher left.)

Why would Joey's normal peers attempt to assign him parallel play roles when adults tried to facilitate cooperative play? The

following excerpt from an observation illustrats the dynamics operating in Joey's attempts to overcome exclusion:

-Joey tells Warren "I get to play in there too!"
-Warren retorts "No!"
-Joey begins to whine and complains to the teacher: "He won't let me play in there!"
-Warren rationalized Joey's exclusion by suggesting that it's "...because he doesn't have a laser gun."
-Warren gets out of the spaceship to talk further with the teacher.
-Joey then begins to climb into the spaceship.
-Warren turns around and tells Joey "No! this is mine!" referring to the spaceship
-"Who helped build it?" the teacher asks Warren.
-Warren then explains to the teacher "Joey doesn't know where to put the block. He doesn't even know what it is! He can make his own."

This brief excerpt suggests that Joey's nursery school playmates had little faith in his ability to play cooperative pretend games, which they in fact preferred. After the teacher left, Joey was relegated to an on-looker role his classmates played in the spaceship. Only when their teacher returned and suggested specific roles did Warren allow Joey to play. This eventually ended up as a passive parallel play role for Joey because he could not assume an active, cooperative role offered by Warren. Nor could Joey discriminate subtle shifts in pretend-play activities which required role modification, thus increasing the frustration of Joey's normal peers in their attempts to involve him in cooperative play.

By the end of the school year when Joey was observed again, his predominant playstyle had reverted to solitary play. However, Joey's solitary play was different in the nursery school in contrast to his special preschool in that solitary play in the mainstream was as equally likely to involve pretend behavior as opposed to simple object manipulation. Joey was also initiating more interactions with his normal peers in nursery school and had shifted to another child as his favorite playmate with whom he was more successful in cooperative

pretend, and parallel pretend play. Yet, it was Joey who tended to initiate pretend-play episodes by the end of the year whereas his classmates in nursery school continued to initiate interactions with him involving constructive, goal-oriented play rather then pretend play.

Differences Between Conventional and Reverse Mainstreaming for Joey

The glaring difference between the two approaches used in "normalizing" Joey's school environment was that Joey exhibited more mature behavior in the nursery school mainstream than he did in his special preschool, in spite of the availibility of two normal peers in his preschool classroom. In the nursery school mainstream, Joey exhibited more cooperative and parallel play in which pretend behavior was evident. Although Joey had reverted to solitary play for a good deal of his interactions in nursery school by the end of the year, his solitary play still evidenced pretend behavior which was distinctly absent in his special preschool.

Why did Joey revert to solitary play in nursery school? The answer is probably that he felt more comfortable with this play style and was unsuccessful in role-taking when attempting cooperative play with his normal peers. However, he was able to incorporate pretend behavior into his solitary play which no doubt he learned from exposure to his non-delayed peers. However, Joey did not transfer his pretend behavior back to his preschool environment where his play style preferance was adult-directed, solitary play.

Did Joey transfer any new behaviors back to his special preschool from his mainstreamed nursery school experience? In terms of communication skills, yes. By the end of the school year, Joey's on-looker behavior (motor communication thru gaze) had greatly increased

in his preschool classroom to a level equal with his initial gaze level in nursery school. By watching his preferred mildly handicapped peers more, Joey communicated more with them particularly in terms of behavior requests for parallel play. However, these overtures went largely unanswered in his special preschool. Had Joey access to normal peers in preschool who were interested in playing with him, Joey's story may have turned out different in being able to successfully utilize his increased skills in communication.

What about imitation learning? In Joey's preschool, there was a virtual absence of any peer imitation, either verbal or motor. Imitation did occur in the mainstreamed nursery school classroom, at least initially. Verbal imitation was the most common form of positive verbal communication exhibited by Joey in nursery school; motor imitation occured much less. Yet with the decrease in cooperative play interactions in nursery school toward the end of the school year, Joey's imitation learning faded away. However, Joey's initial imitation of his normal nursery school peers is likely to have transferred to his use of pretend play toward the end of school.

Why didn't Joey's normal peers interact with him in his preschool classroom? The answer is fairly simple. The two normal peers had been neighborhood playmates prior to their enrollment in the preschool and had developed a close attachment bond to each other. The non-delayed girl (Anne) was rather sophisticated and precosious for a five year old and she clearly dominated her normal male playmate (Kris) who was only three years old. Because of Anne's sophistication, she could not easily be facilitated by an adult to play with significantly less socially sophisticated children; she was simply

not interested in the handicapped children but rather, was apprehensive of them. Consequently Anne preferred cooperative - pretend play with Kris who generally obliged her even when his preference was not coincident with hers. Additionally, same-sexed playmate preferences operated to make Anne inaccessable to Joey, and in turn, Anne denied Kris access to Joey because of her demands that Kris play with her. By contrast, Joey had many non-delayed male playmates to choose from in nursery school and he eventually developed a viable friendship with one of them in spite of exclusionary tendencies from other normal male peers.

Bart's Story

Bart is a six year old boy of low normal intelligence who is labeled communication handicapped. Some might say he is learning disabled as was the determination of an initial case conference. Regardless of Barts handicap label, he is a hyperactive, aggressive youth with a speech/articulation problem complicated by concept learning difficulties and a short attention span. Bart has a very potent personality and is the classroom "ring-leader" among his handicapped classmates in his special preschool.

Like Joey's special preschool classroom across the hallway, Bart's mornings were spent in a highly structured intervention program for the preschool handicapped child. In this classroom, Bart was exposed to seven other handicapped children ranging from mildly to severely mentally handicapped. He also had access to two "normal peer models" -- a five year old boy and a four year old girl -- in his special preschool.

In the afternoons, Bart was mainstreamed into the regular education division's kindergarten classroom. In kindergarten, Bart

had the opportunity to interact with twenty non-delayed five year olds as well as one other mildly mentally handicapped child from another special preschool classroom. Unlike Joey's nursery school envirnoment, Barts kindergarten provided structured academic and language periods along with opportunities for free play, once Bart's academic work was completed.

Bart in Preschool: Play Behavior

Bart attached himself immediately to Norman, the male peer model, when Norman arrived in the preschool in late fall. Both boys preferred active, rough and tumble play activity which facilitated their mutual attraction. They were also the two highest functioning children in this special preschool class and close to each other's chronological age, Norman preferring older males as playmates to begin with.

With Bart's strong personality, he tended to be the leader for initiating play episodes with Norman. When observed over the winter of 1980-81, almost two-thirds of Barts play episodes were of an inappropriate nature such as playing football inside the classroom or encouraging chase scenerios with Norman. This was inspite of teacher directions specifying designated play areas and play activities. Consequently, teacher interventions were frequent in attempting to re-direct Bart into more appropriate play. Unfortunately, Norman had little effect as a source of moderation on Bart's behavior. To the contrary, Bart influenced Norman more than Norman influenced Bart.

Norman's play preference (as with Joey's nursery school peers) was for cooperative-pretend play. Norman did try to encourage such play with Bart but was usually frustrated in these attempts.

Consequently, Bart's dominant play style during the winter was associative play with Norman due to Barts inability to assume an appropriate role in the context of Norman's intent for cooperative-pretend play. In other words, Bart's interaction with Norman focused on their association, not on their mutually difined activity. The two boys were simply on different wave lengths. For Bart, a chase was a chase; for Norman, the chase was a part of playing Buck Rogers or Super Samurai.

When frustrated by Bart's failure to play appropriately in cooperative-pretend play, Norman would tend to seek out Robbie or Chester (both moderately mentally handicapped) for involvement in cooperative play. Alternatevely, when associative play with Bart resulted in teacher intervention, Norman would shift to parallel-pretend or solitary-pretend play behavior.

Teacher terminated play episodes between Norman and Bart however often resulted in Bart throwing a temper-tantrum or being placed in "time-out." Following such episodes, Bart would tend to ignore Norman and either play by himself or involve himself briefly in parallel play. When approached again by Norman with a cooperative play overture, Bart would tend to channel Norman back into the type of solitary play that Bart had begun just prior to his present encounter with Norman. At best, such play episodes resulted in parallel play or, more likely, Norman would terminate the episode.

Due to frequent teacher interventions during the initial observations, Bart experienced considerable negative affect. Consequently, negative gestures and negative verbalizations were frequently directed to the teacher and to Norman. Obviously, this did nothing to instill

further cooperative behavior between Norman and Bart.

When observed toward the end of the school year, Bart's inappropriate behavior had dropped to about one-third of his total play episodes and these were almost exclusively in the context of solitary play -- Norman had ceased to play with Bart under inappropriate circumstances. At this time, Bart's dominant play style was parallel play with Norman and Mary (the other peer model). Interestingly, cooperative play had begun to emerge with Bart, but these episodes were few and primarily restricted to playing with Robbie, or with Mary when Norman was absent.

With the reduction in Bart's inappropriate behavior (resulting from increased teacher structure for play activities and Norman's lack of encouragement and involvement with Bart in inappropriate play), interactions with peers increased (particularly with Mary), and interactions with objects decreased. However, Norman had begun to reject Bart more and there was considerable criticism and taunting of Bart in Norman's verbal communication with him. Rejection of Bart by Norman usually occured when Bart attempted to join Norman in cooperative play with Mary. Such rejection generally followed Bart's disruption (intentional or unintentional) of a cooperative play episode. Interestingly, Bart's aggressiveness toward Norman had doubled since the winter (7 to 15% of his play episodes), whereas aggression on Norman's part toward Bart had begun to emerge (16% of his play episodes) when previously Norman had restrained himself from aggressiveness toward Bart. Apparently, Norman's

patience with Bart had worn thin. By late spring, Bart was apparently trying to regain his relationship with Norman, but Norman's receptiveness was rather cool.

Bart in Kindergarten: Play Behavior

Similar to Joey, Bart displayed qualitatively different behavior patterns in his mainstreamed kindergarten setting in contrast to how he behaved back in his special preschool classroom. When observed during the winter in kindergarten, Bart's dominant play style was cooperative play as opposed to the associative play style which characterized his play in the preschool during this time. Equally important if not more impressive, Bart displayed virtually no inappropriate play behavior in his kindergarten setting. The constructiveness of his cooperative play in kindergarten tended toward appropriate simple object manipulation as in sand play or block play in which Bart was usually the initiator for joining small groups of nondelayed children of both sexes.

Parallel play was also much in evidence for Bart in kindergarten. Along with his cooperative play, these two play styles accounted for 65% of Bart's play episodes in kindergarten. Solitary play was minimal (10% of his total play episodes) and was generally the result of his nondelayed playmates terminating their involvement with Bart in parallel or cooperative play to begin a new activity once a natural goal state had been reached for them. However, cooperative play was more likely to be terminated by Bart's nondelayed peers when Bart tried to take over an activity. Unlike the preschool, Bart's kindergarten playmates did not let him "rule the roost."

Much the same pattern of behavior was evident when follow-up observations were conducted toward the end of the school year in Bart's kindergarten. His dominant play style continued to be cooperative play in which the incidence of this type of play episode had not only increased but had changed from simple object manipulation to a more goal-oriented constructiveness involving relatively complex interactions with his nondelayed playmates. An important change, however, was that Bart's normal peers were now much more controlling of interactions with Bart in that episode initiations and terminations were more under the control of Bart's playmates than had previously been the case. In short, Bart appeared to have developed a stronger tolerance for letting other children "call the shots", and his compulsive competitiveness was less evident by year's end.

Rejection did occur for Bart, and this usually happened in the context of unintentional cooperative play disruptions such as causing a block tower to tip over when that final block should not have been placed on the top of the structure. Bart generally handled such rejection well by simply joining another play group and starting over. An important consideration in overcoming rejection was that there was virtually no aggressiveness on Bart's part as a way of responding to rejection.

In terms of communication behavior, negative verbalizations were almost nonexistent for Bart either in the winter or spring. Although there was a reduction in Bart's overall level of positive verbal communications by the end of the year, behavior requests and informational statements far exceeded his verbal output in the preschool.

Bart's Instructional Experience in Preschool

Academic work groups in Bart's special preschool were characterized by structured independent work of a perceptual or fine-motor nature in which Bart interacted primarily with the teacher in a small group setting. The teacher tended to control interpersonal interactions in which she focused most of her attention on the handicapped children using verbal prompt techniques for the most part. Cooperative tasks between handicapped and normal peers were almost nonexistent, and little active modeling of the normal peers took place.

Off-task behavior for Bart in his work group occurred in about 15% of his behavior episodes, and these generally involved disruptions of the male normal peer's work. Due to the independent and competitive structure of Bart's work group, positive modeling was primarily limited to a passive role in which Norman (the normal peer model) would demonstrate conscientious, independent work habits. Active modeling for Norman was then generally limited to behavior requests of a disciplinary nature directed toward Bart as a result of Bart's disruptions.

In Bart's language circle, he was generally a passive actor in the sense of conforming to the teacher's group structure which primarily required that Bart respond when called upon. Appropriate and active initiation of verbal behavior occurred approximately in 20% of Bart's episodes in the language circle with virtually no spontaneous elaboration on his part. Off-task behavior occurred for approximately 8% of Bart's language circle episodes.

The male normal model (Norman) in Bart's language circle exhibited similar behavior with the exception that off-task episodes

accounted for only about 3% and with Norman providing spontaneous elaboration in about 20% of the language circle behavior episodes. As a result of Norman's tendency toward spontaneous elaboration, the language circle provided a good opportunity for modeling of communication skills. Where spontaneous elaboration tended to occur at a high rate was for language activities involving rhyming games which enhanced the children's opportunities for more active behavior and interaction with each other.

Bart's Instructional Experience in Kindergarten

In kindergarten, Bart tended to work in small groups with three to four nondelayed classmates while the teacher rotated through the various work center in her supervision of the children. These work groups were similar to that found in Bart's special preschool in the sense that most of the work involved independent perceptual or fine-motor activity. However, a significant difference was that cooperative work activity did take place between Bart and his normal peers in approximately 10% of the kindergarten work group episodes. Such cooperative behavior among the children was apparently due to work-structure constraints requiring the children to work together in sharing work materials without constant teacher supervision and direction. In other words, the normal peers were much more functionally in charge of controlling responsible and productive work habits. There were also more nondelayed children in such work groups than in Bart's preschool, and usually one of these children was a recognized leader whom the other children saw as a role model. Consequently, Bart was more likely to initiate positive interactions with his normal peers, thus, increasing the likelihood of his peers modeling and demonstrating appropriate academic behaviors. Consistent with

the frequency of cooperative work episodes, Bart was observed to model the work behavior of his nondelayed peers in approximately 10% of his work episodes related to response style.

Bart's language circle in kindergarten reflected much the same structure as that found in his special preschool. One important difference was that Bart's behavior in his kindergarten setting tended to be much more passive in conforming to the kindergarten language circle structure. His off-task behavior occurred no more frequently than that exhibited in the preschool setting. However, Bart appeared intimidated by the tendency of his kindergarten classmates to respond "in chorus" in which Bart would take his cue from the group's response and participate in somewhat of a delayed fashion. Bart was actually less of an "active" responder in kindergarten language circles. As with the tendency of Bart's nondelayed classmates in his preschool, his kindergarten peers exhibited relatively high rates of spontaneous verbal elaboration when this was allowed for by the teacher's structuring of the language circle dynamics.

Differences Between Conventional and Reverse Mainstreaming for Bart

On most comparisons, Bart displayed more age-appropriate and mature behavior in his mainstreamed kindergarten setting than he did in his special preschool where the reverse mainstreaming approach was utilized. Although the male normal peer model in Bart's preschool appeared to be partly responsible for a reduction in Bart's inappropriate play behavior, it is significant that inappropriate play behavior was virtually absent in the kindergarten setting.

The most obvious difference between the two settings was the relatively high incidence of cooperative play behavior for Bart in kindergarten. By contrast, cooperative play did not emerge until

late in the school year, was of low incidence and was also less sophisticated than that found in the kindergarten. Bart's play behavior tended to be constructive and goal oriented to a higher degree in kindergarten than in the reverse-mainstreamed preschool where Bart's play was more of simple-manipulation and exploratory in nature.

In kindergarten, the normal peers appeared to exert more of a regulating influence on Bart's play behavior. However, Bart's kindergarten classmates appeared to terminate play episodes with him more frequently than that found in his preschool. A similar situation was also developing in the preschool, however, where Norman had become less positively interactive and more likely to terminate with Bart as the school year drew to a close.

Of particular interest is the lack of aggressiveness displayed by Bart in his kindergarten setting in contrast to his preschool experience where aggression on Bart's part actually increased. The increase in Bart's preschool aggressiveness appeared to correspond with a decrease in Norman's tolerance for Bart's play behavior. Positive verbalizations were also noted to be higher in kindergarten than in the reverse-mainstreamed preschool.

Bart received more individualized teacher attention in his special preschool than he did in kindergarten, but alternatively, his nondelayed peers were more positively interactive with him in the kindergarten work groups. In neither setting were the teacher's involved much directly in the structuring of modeling interactions. Yet, the more cooperative nature of the kindergarten work groups tended to facilitate modeling behavior moreso in which such groups were directly regulated more by the normal peers than by teacher

intervention. The more cooperative structure of the kindergarten work groups was apparently more conducive to active modeling behavior by nondelayed children than that found in the reverse-mainstreamed preschool. Off-task behavior was also less evident for Bart in the kindergarten mainstream or work centers.

The language circles across both settings exhibited a very similar structure. The major structural difference was that in kindergarten such groups were composed of more children in which group conformity was more visible. This appeared to inhibit Bart's active responding, and he was more of a passive actor in the kindergarten than in preschool. However, across both settings a cooperative group spirit was evident in language circles where the nondelayed children would model appropriate on-task behavior as well as demonstrate a relatively high degree of verbal elaboration for their less verbally proficient handicapped peers. The smaller group structure of the preschool allowed Bart to be more verbally active which seemed to prepare him well for surviving in a large group language situation in the kindergarten.

DISCUSSION OF THE TWO CASE STUDIES

The case studies of Joey and Bart illustrated the processes and effects of alternative mainstreaming approaches in two distinct situations. Joey's situation was different from Bart's not only because of personality differences, but because the mainstreaming alternatives operated differently for the two boys, both in their special preschool classrooms, but also, in their regular education classes in nursery school and kindergarten.

An examination of common themes across the two case studies

suggests that conventional mainstreaming generally worked more successfully than did the reverse-mainstreaming alternative in terms of facilitating more appropriate/mature play behavior and in promoting modeling effects from exposure to nondelayed children. Yet the reverse-mainstreaming alternative appeared to be more successful in Bart's classroom than in Joey's.

What was it that appeared to make conventional mainstreaming more effective? And why was Bart's classroom setting more effective in implementing the reverse-mainstreaming approach? The following sections address these two questions. A final section addresses concerns for improving the implementation of the reverse-mainstreaming alternative.

Factors Related to the Effectiveness of Conventional Mainstreaming

An obvious difference between the mainstreamed classrooms in the regular education division and the special preschool was the sheer number disparity of nondelayed children. In the preschool classrooms, nondelayed children accounted for only 20% of the classroom population whereas in the mainstream, normal peers accounted for over 90% of the class. There is obviously something to be said for "strength in numbers"--that the sheer availability of multiple nondelayed children provides something which a few normal peers don't. More specifically, the issue is this: "Can two normal children alter the peer culture of a handicapped child's class in affecting a 'normalized' setting equivalent to that found in most regular education classes?" The answer is probably "no".

The available evidence suggests that the child's classroom peer culture is a potent regulator of the child's behavior. When exposed to primarily lower functioning children, a handicapped

child is going to be influenced by the behavioral peer norms of that classroom which are not likely to exhibit as socially sophisticated and appropriate behavior as a more "normal" setting would with a majority of more socially sophisticated peers operating as influences on setting standards for behavior.

Culture is based on the shared values of a recognized and dominant element of the social system. In integrated classrooms, the social system will tend to be influenced by the dominant group as well as the structure imposed on the individuals within that system. In Bart's preschool, for example, he was the dominant peer influence; but in kindergarten, he was in the minority, and his behavior tended to conform to the social norms operating among his nondelayed classmates. In Joey's case, few children interacted positively with him in his special preschool, and he was left with little in the way of peer culture norms other than his classmates' propensity for solitary play and negative behavior. Yet in nursery school, nondelayed children would play with Joey, he was attracted to them and he tried to take on roles that were consistent with the peer culture he found himself in.

The classroom structure also appears important, particularly, for academic activities. In work settings which allow for peer interaction and where the dominant peer culture is that of the nondelayed child, the probability for modeling of good work habits seems to be higher. Where competition is characteristic of work groups, and where the handicapped child's culture is dominant, the probability of modeling effects is much lower. But a competitive work structure by itself appears not to be conducive to the promotion of modeling effects, regardless of the dominant peer culture.

In Bart's kindergarten mainstream, both the work centers and the language circles exhibited some cooperative structural characteristics. In conjunction with a normal peer culture which regulated his behavior, Bart was more likely to model appropriate behavior and to conform to the norms of his peer culture. A similar situation existed for Bart in his preschool language circle where Norman's verbal behavior was a dominant influence, and the group structure allowed for peer interaction and cooperation.

A significant point to make, however, is that Joey's and Bart's nondelayed peers in the mainstream exerted more influence on them than did the teachers. The peer culture set the standards for appropriate behavior both in play and in work. And given multiple role models to choose from, the handicapped child's opportunities for positive and appropriate interaction were increased. Children do for children what adults cannot.

Factors Related to Effectiveness of Reverse Mainstreaming

The use of normal peer models in Joey's classroom was largely a failure. However, more success was evident in the use of normal peers in Bart's classroom. Why were these classrooms so different in their outcomes?

As suggested in Joey's case study, the normal peers in his classroom were a closed social unit due to their establishment of prior social bonds. The social interaction tendencies of these two children were primarily controlled by Anne, with Kris following her lead. It would seem that Anne's age and social sophistication (she acted more like a first grader than a preschooler) made her a poor bet for interaction with children who were much less socially sophisticated than she was.

By contrast, both Norman and Mary interacted fairly well with the children in Bart's classroom. Norman and Mary had no prior social relationship with each other before entering Bart's preschool and were receptive to making new friends. Both normal peers were also developmentally much closer to their handicapped playmates. Interestingly, Mary was, perhaps, more tolerant and interactive with a wider range of handicapped children, and she was also much more interested in pleasing the teacher (conforming to adult standards and expectations) than was Norman.

Mary's tendency to seek adult reinforcement for interaction with handicapped children (whether prompted by an adult or spontaneous) was a visible difference between she and Norman's interaction styles. Perhaps sex differences do exist in factors that promote interaction between the handicapped and nondelayed child. On the surface, Mary was much more nurturant of her handicapped peers, and she was often very effective in the role of a "teacher aide" even though she was only four years old. Whereas Mary enjoyed playing a nurturant, maternal role with her handicapped classmates, Norman was more interested in play activities per se, not necessarily with the specific children themselves.

A final issues with respect to the reverse-mainstreaming alternative concerns "peer culture potency." Is a 20/80 ratio of normal to handicapped peers adequate to "normalize" a handicapped child's environment? As suggested earlier, the answer is probably no. No doubt, there were positive benefits of enrolling two normal peers in Bart's classroom as was evident by the emergence of cooperative play for Bart and his reduction of inappropriate play. Yet Bart still displayed considerable aggressiveness and inappropriate

play behavior by the end of the year; these behaviors were conspicuously absent in his mainstreamed kindergarten setting where 90% of the children were nondelayed.

Based on the observation that children have strong preferences for same-sexed playmates, it is likely that Norman would have needed at least another nondelayed male child before his presence in Bart's classroom was potent enough to effect a strong change in Bart's behavior. In order for a "normal peer culture" to be evident in Bart's classroom, more Norman's and additional Mary's would be required. Children must interact together and share a similar set of skills before a social culture can exist for setting standards of desired behavior. By himself, Norman was not potent enough to set peer culture standards, and Mary was simply not as attractive to Bart because of her sex difference.

IMPLICATIONS FOR MAINSTREAMING

The discussion of the case study data suggests several implications for mainstreaming practices and, particularly, for improving the implementation of the normal peer model approach otherwise referred to as reverse mainstreaming. Three issues will be discussed as they relate to concerns for optimizing the reverse-mainstreaming alternative. These issues relate to selection criteria for normal peers, minimally effective ratios of handicapped to nondelayed children and strategies for facilitating social interaction toward promoting positive modeling effects.

Selection Criteria

In recruiting nondelayed children as normal peer models, several considerations should be taken into account. The normal peers need

to be developmentally and personality matched to those handicapped children whom they are intended to effect most. Secondly, it would be inadvisable to recruit nondelayed children who have already established strong social attachments to each other prior to their enrollment in a special education classroom. And finally, little girls may be better than little boys for providing tolerance, nurturance and example-setting in the capacity of role modeling.

Optimal Ratios

In order for a normal peer culture to emerge as a potent regulator of handicapped children's behavior, it appears that a 40% proportion of nondelayed children is necessary before minimally reliable effects are noticed. This would be especially true for smaller classes (e.g., ten children) given the same-sex preference of preschool children that was observed in this study. Thus, Norman and Mary would each need at least an additional nondelayed playmate of the same sex before they could begin to operate as a visible social system with enough potency to regulate the behavior of their handicapped classmates.

Facilitation

Where possible, work group structures need to promote positive peer interaction through cooperative tasks if modeling effects are to emerge. Matching children by developmental level and personality facilitates peer interaction. And if small groups of nondelayed and handicapped children can work together cooperatively, then modeling effects are likely to be enhanced.

In free play situations, cooperative play interactions can be enhanced if teachers can facilitate role-taking behavior on the part of the handicapped child. Initially, this may require active

teacher involvement to facilitate role-taking and problem solving. Teacher facilitation, however, is probably more likely to be effective if younger normal peer models are involved who can be more easily directed by an adult. Finally, having available multiple toys or play-props of the same kind will facilitate cooperativeness, sharing and positive social interactions.